

2/14/2018

Print



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipt

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	A/C
PO038983	ACI001-VC	1	1	Net 30	M304S16GA	304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				96	2/12/2018	96		S042196	Stock	2/13/2018	\$ 6.51 / sf	
		2			M304S18GA	304/316 .050 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240				256		256		S042197	Stock	2/13/2018	\$ 5.36 / sf	
		3			M304S20GA	304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				96		96		S042198	Stock	2/13/2018	\$ 3.91 / sf	
		5			M6061T6S.040	6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf					2/12/2018	96		S042199	Stock	2/13/2018	\$ 3.66 / sf	
		6			M6061T6S.063	6061-T6 .063 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf						96		S042200	Stock	2/13/2018	\$ 5.64 / sf	
		7			M6061T6S0.250X6.250	6061-T6S1 Sheet 0.250" Thick Plate x 6.250" Wide				6		6		S042201	Stock	2/13/2018	\$ 16.51 / ft	
		8			M6061T6B1.000X04.000	6061-T6 Bar 1.00 X 4.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				12		12		S042202	Stock	2/13/2018	\$ 13.25 / ft	
		9			M6061T6B1.000X8.000	6061T6 Bar 1.000 X 8.000 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft						12		S042203	Stock	2/13/2018	\$ 24.99 / ft	
		10			M6061T6B1.000X06.000	6061T6 Bar 1.00 X 6.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				36		36		S042204	Stock	2/13/2018	\$ 19.45 / ft	
		13			M304B1.000X2.500	304 Bar 1.000 X 2.500" MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		12		S042205	Stock	2/13/2018	\$ 30.26 / ft	

2/14/2018

Print

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit
		14			M304B2.500X02.500	304 Bar 2.500 X 2.500" MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft						13		S042206	Stock	2/13/2018	\$ 80.75 / ft
		15			M304B0.625X4.000	304 Bar 0.625 X 4.000" MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft				4		4		S042207	Stock	2/13/2018	\$ 48.11 / ft
		16			MT-4140QT-R1.375	MT-4140 QT-R1.375 : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT				20	2/14/2018	24		S042208	Stock	2/13/2018	\$ 9.39 / ft
		17			M303R0.250	303 Round Bar 0.250"				12	2/12/2018	12		S042209	Stock	2/13/2018	\$ 0.57 / ft
		18			M6061T6TS1.250W.120	6061T6 Sq Tube 1.250 X 1.250 X 120W : MATERIAL: 6061-T6 OR 6061- T651/T6510/T6511/T62 SQUARE TUBING AS PER AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR PER AMS-QQ-A-200/8 OR AMS 4160 receive ft				20		20		S042210	Stock	2/13/2018	\$ 1.46 / ft
		19			M2024T3S.040	2024-T3 .040 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209				48		48		S042211	Stock	2/13/2018	\$ 5.60 / sf
		20			M1018R1.00	1018-1025 Round Bar 1.00 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108 receive ft				20		18		S042212	Stock	2/13/2018	\$ 2.67 / ft
		21			MT-4140QT-R1.000	AISI 4140 Quenched & Tempered Steel Round Bar 1.000" Dia.				8		8		S042213	Stock	2/13/2018	\$ 4.79 / ft
		22			MT-4140QT-R0.625	AISI 4140 Quenched & Tempered Steel Round Bar 0.625" Dia.				90	2/14/2018	90		S042214	Stock	2/13/2018	\$ 2.88 / ft
		24			MT-A513-T- 0.750W0.085	A513 Seamless Alloy Steel Round Tubing 0.75" dia. x 0.085" Wall				20		23		S042215	Stock	2/13/2018	\$ 3.60 / ft
Total:										972		978					

Plex 2/14/2018 10:11 AM Dart.Dubois.Pascal

038983



ACIER OUELLETTE INC.

DELIVERY - CLIENT

CO00073284

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mt: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mt: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page 1

Credit Terme

Net 30 Days

Carrier

OUELLETTE VALLEYFIELD

Salesman

Josianne Bourdon

Processed by

03983 R 038983

Your order N°

Delivery date

2018/02/13

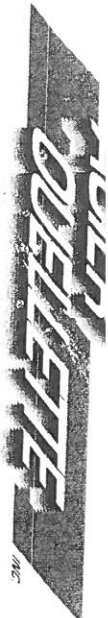
Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 SHEET SS 16G SS304-2B (4 X 8) FESS-16G483042B 3419 3 X 4' X 8' HEAT	252.00	96.00	PI2_\$CLB		3X		96 112 ④				
2 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 8 X 4' X 8' HEAT	537.60	256.00	PI2_\$CLB		8X		256 112 ③				
3 SHEET SS 20G SS304-2B (4 X 8) FESS-20G483042B 3430 3 X 4' X 8' HEAT	150.72	96.00	PI2_\$CLB		3X		96 112 ②				
4 ALU SHEET .040 (18G) 6061-T6 (4 X 12) FEAL-0404126061 3121 2 X 4' X 12' HEAT	54.05	96.00	PI2_\$CLB		2X		96 ①				

FEB 14 2018

NIR : R-109516-6

DAS
11
8-00

Next Page...



ACIER OUELLETTE INC.

DELIVERY - CLIENT

CO00073284

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Customer No°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order No°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Instruction F-M

Page

2

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
TRANSIT ST-JEROME LE 12/02											
6 ALU SHEET .064 (14G) 6061-T6 (4 X 8) FEAL-064486061 3175	86.50	96.00	PI2_\$CLB								
3 X 4' X 8' HEAT					3X		960				
7 ALU PLATE 1/4 6061-T651 RANDOM PAL-146061-V 4245	21.96	6.00	PI2_\$CLB								
1 X 6 1/4" X 72" HEAT SHEAR CUT SHEAR		1.00	UN								

HEAT
6170219

NIR : R-109516-6

Next Page...



DELIVERY - CLIENT

CO00073284

ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page 3

Credit Terme

Net 30 Days

Carrier

OUELLETTE VALLEYFIELD

Processed by

Josianne Bourdon

Your order N°

03983

Delivery date

2018/02/13

Customer N°

CL10001056

Date

2018/02/08

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
8 FLAT ALU 1 X 4 6061-T6 RANDOM FAL-14-V 2532 1 X 12' HEAT	57.60	12.00	PL_\$CLB		1X12'		12				
9 FLAT ALU 1 X 8 6061-T6 RANDOM FAL-18-V 2558 1 X 12' HEAT	112.78	12.00	PL_\$CLB		1X12'		12				
TRANSIT ST-JEROME LE 12/02											
11 FLAT ALU 1 X 6 6061-T6 RANDOM FAL-16-V 2536 3 X 12' HEAT	253.76	36.00	PL_\$CLB		3X12'		36				

NIR : R-109516-6

Next Page...



DELIVERY - CLIENT

CO00073284

ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mt: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mt: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page

4

Customer N° CL10001056
Date 2018/02/08
Delivery date 2018/02/13
Your order N° 03983
Processed by Josianne Bourdon
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
12 FLAT SS 1 X 2 1/2 SS304 RANDOM FSS-1212-V 3492 1 X 12' R/L HEAT AC13459-MM-12/02	102.00	12.00	PL_\$CLB		14 128"		12				
13 SQUARE SS 2 1/2 SS304 NS CSS-212 10059 1 X 12' R/L HEAT AC13460-CF-12/02	255.00	12.00	PL_\$CLB		14 13'10"		13				
14 FLAT SS 5/8 X 4 SS304 RANDOM NS FSS-584-V 8897 1 X 4' HEAT AC13458-GR-12/02	34.00	4.00	PL_\$CLB		14 4'		4				

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

DELIVERY - CLIENT

CO000073284

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J65 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page

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Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
15 ROUND 4140 HT 1 3/8 NS R4140-138H 9252 1 X 20' HEAT AC13457-VA-12/02	100.98	20.00	PL_\$CLB		14 242		241				
16 ROUND SS 1/4 303 RANDOM RSS-14303-V 5739 1 X 12' R/L HEAT	2.00	12.00	PL_\$CLB		1 X 12'		12				
17 TUBE ALU 1 1/4 X 1 1/4 X .120 6061-T6 R RANDOM TAL-114114120R-V 6312 1 X 20' ROUND CORNER HEAT	11.42	20.00	PL_\$CLB		1 X 20'		20				
18 ALU SHEET .040 (18G) 2024-T3 4B (4 X 12) FEAL-0404122024B 3118 1 X 4' X 12' HEAT	27.02	48.00	PI2_\$CLB		14 4' X 12'		48				

NIR : R-109516-6

Next Page...



DELIVERY - CLIENT

CU0000/3284

ACIER OUELLETTE INC.

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J65 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page

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Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

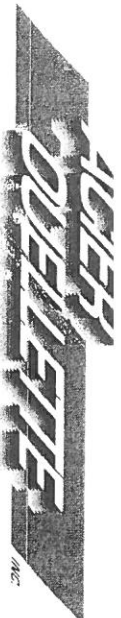
Credit Terme

Net 30 Days

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
19 ROUND CR 1 1018 RANDOM RCR-1-V 5292 1 X 20' HEAT	53.40	20.00	PI_\$CLB		1x18'8"		18			
20 ROUND 4140 HEAT TREAT 1 RANDOM R4140-1H-V 4919 1 X 8' HEAT COUPE A LA SCIE SCIE 1	21.36	8.00	PI_\$CLB		1x8'		18 cut 24'8"			1 X 16'8"
21 ROUND 4140 HEAT TREAT 5/8 RANDOM R4140-58H-V 4977 1 X 10' HEAT	10.43	10.00	PI_\$CLB		1x10' 4x30'		90			

NIR : R-109516-6

Next Page...



DELIVERY - CLIENT

CUUUU/3207

ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CL10001056
Date 2018/02/08
Delivery date 2018/02/13
Your order N° 03983

Billed to
DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to
Ontario,
Att: CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page 7

Credit Terme Net 30 Days

Salesman JOSIANNE BOURDON
Carrier OUELLETTE VALLEYFIELD

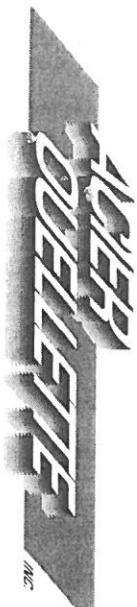
Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
TRANSIT ST-JEROME LE 12/02										
COUPE A LA SCIE SCIE 1		1.00	UN							
23 TUBE MEC 0.750 OD X .083 NS TME-0750083 10058 1 X 20' R/L OFFER .083 HEAT AC13459-MM-12/02	11.82	20.00	PL_\$PI		14 23		23			

Total Weight (lbs) : 2 156.40 **NIR :** R-109516-6

Conditions :
All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time	Customer's Signature	Date
					11/02/13

Total (\$CAD)



ACIER OUELLETTE INC.

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00073496

Customer N° CL10001056
Date 2018/02/09

Delivery date **2018/02/13**

Your order N° 038983

Processed by Josianne Bourdon

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Page 1

Instruction F-M

Delivery Route 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND 4140 HEAT TREAT 5/8 RANDOM R4140-58H-V 4977 4 X 20' R/L 1 X 10' TRANSIT ST-JEROME LE 12/02	93.87	90.00	PL \$CLB		4x 17'10" 14'0"						

Total Weight (lbs) : 93.87

NIR : R-109516-6

Conditions :
All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By : Verified By :

Delivered By : Time

Customer's Signature

Total (\$CAD)

Date



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038983

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO038983

PO Date: 2/7/18

Due Date: 2/12/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lacelle, LindaPhone:
llacelle@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: quotation sou0084311

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
11	M303B1.000X03.000		303 Bar 1" X 3' : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	2/28/18	24 ft	0 ft	24 ft	\$74.41/ft	\$1,785.84
12	M303B1.000X1.000		M303B1.000 X 1.000 : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	2/28/18	24 ft	0 ft	24 ft	\$20.94/ft	\$502.56
23	MT-4140-B-1.000X6.250		4140 Steel Bar 1.000 X 6.250 : AISI 4140N STEEL BAR PER MIL-S-5626, AMS 6382, AMS 6349, AMS 6529 receive ft	Firmed	2/28/18	4 ft	0 ft	4 ft	\$61.25/ft	\$245.00

Grand Total: \$2,533.40

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038983

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO038983

PO Date: 2/7/18

Due Date: 2/12/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lacelle, LindaPhone:
llacelle@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: quotation sou0084311

REVISES

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
11	M303B1.000X03.000		303 Bar 1" X 3' : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	2/28/18	24 ft	0 ft	24 ft	\$74.41/ft	\$1,785.84
12	M303B1.000X1.000		M303B1.000 X 1.000 : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	2/28/18	24 ft	0 ft	24 ft	\$20.94/ft	\$502.56
23	MT-4140-B- 1.000X6.250		4140 Steel Bar 1.000 X 6.250 : AISI 4140N STEEL BAR PER MIL-S- 5626, AMS 6382, AMS 6349, AMS 6529 receive ft	Firmed	2/28/18	4 ft	0 ft	4 ft	\$61.25/ft	\$245.00

2/23/2018

PURCHASE ORDER

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
25	M304S16GA		304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	2/26/18	96 sf	0 sf	96 sf	\$6.50863/sf	\$624.83
<div style="text-align: right;"> <p>96^{sf} DAS 11 9-89 FEB 23 2018</p> </div>										
Line Item Note replacement mat'l need credit for line #1 mat'l was not to spec's										
									Grand Total: \$3,158.23	
Order Notes										
Procurement Quality Clauses A005 right of entry A012 chemical and physical test report A016 personnel qualification A017 raw material identification (as applicable) A026 certification of material conformance A041 quality management system A042 dart notification by supplier A043 retention of quality documents A048 counterfeit parts avoidance, detection, mitigation and disposition program A049 supplier awareness										
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.										

Plex 2/23/18 9:01 AM dart.lavoie.chantal



ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy

CO00073284

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to
Att : CHANTAL LAVOIE Tél.: 613-632-5200
Delivery Route 5

Page

1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only					
				CMD	EXP	B/O	IN	I	S	C	OUT	
1 SHEET SS 16G SS304-2B (4 X 8) FESS-16G483042B 3419 <i>3 X 4' X 8' HEAT: C2700924</i>	252.00	96.00	PI2_\$CLB	3.00								
2 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 <i>8 X 4' X 8' HEAT: 088E</i>	537.60	256.00	PI2_\$CLB	8.00								
3 SHEET SS 20G SS304-2B (4 X 8) FESS-20G483042B 3430 <i>3 X 4' X 8' HEAT: 499F</i>	150.72	96.00	PI2_\$CLB	3.00								
4 ALU SHEET .040 (18G) 6061-T6 (4 X 12) FEAL-0404126061 3121 <i>2 X 4' X 12' HEAT: 01/0082345/7</i>	54.05	96.00	PI2_\$CLB	2.00								

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

Order - Sales

Copy

CO00073284

935, Boul. du Hiver
Sablery de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

OART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Page

2

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
TRANSIT ST-JEROME LE 12/02										
6 ALU SHEET .064 (14G) 6061-T6 (4 X 8) FEAL-064486061 3175	86.50	96.00	P12_\$CLB	0.00 3.00						
3 X 4' X 8' HEAT: 01/00/2091/5										
7 ALU PLATE 1/4 6061-T651 RANDOM PAL-146061-V 4245	21.96	6.00	P12_\$CLB	1.00						
1 X 5 1/4' X 72' HEAT: 6170219										
SHEAR CUT		1.00	UN							
2										
8 FLAT ALU 1 X 4 6061-T6 RANDOM PAL-14-V 2532	57.60	12.00	PL_\$CLB	1.00						
1 X 12' HEAT: 3B7163										

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

Order - Sales

Copy

CO00073284

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att: CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

OUELLETTE VALLEYFIELD

Carrier

Net 30 Days

Credit Terme

Page

3

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
9 FLAT ALU 1 X 8 6061-T6 RANDOM FAL-18-V 2558 <i>1 X 12' HEAT : 384855</i> TRANSIT ST-HENRIE 12/02	112.78	12.00	PL_\$CLB	1.00						
11 FLAT ALU 1 X 6 6061-T6 RANDOM FAL-16-V 2536 <i>3 X 12' HEAT : 37241</i>	253.76	36.00	PI \$CLB	0.00 3.00						
12 FLAT SS 1 X 2 T12 SS304 RANDOM FSS-1212-V 3492 <i>1 X 12' R/L HEAT: 265140</i> <i>AC13459-MN-12/02</i>	102.00	12.00	PI_\$CLB	1.00						
13 SQUARE SS 2 1/2 SS304 NS CSS-212 10059 <i>1 X 12' R/L HEAT : 56171148</i>	255.00	12.00	PI_\$CLB	1.00						

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.
935, Boul. du Hâvre
Sahabery de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy

CO00073284

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Page

4

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
ACI3460-CF-12/02 14 FLAT SS S/B X 4 SS304 RANDOM NS FSS-584-V 9897 1 X 4' HEAT 56171702 ACI3458-GR-12/02	34.00	4.00	PL_\$CLB	1.00						
15 ROUND 4140 HT 1 3/8 NS R4140-138H 9252 1 X 20' HEAT 25063196 ACI3457-VA-12/02	100.98	20.00	PL_\$CLB	1.00						
16 ROUND SS 1/4 303 RANDOM RSS-14303-V 5739 1 X 12' R/L HEAT BSW8	2.00	12.00	PL_\$CLB	1.00						

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

Order - Sales

Copy

CO00073284

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

OUELLETTE VALLEYFIELD

Carrier

Net 30 Days

Credit Terme

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Page

5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
17 TUBE ALU 1 1/4 X 1 1/4 X .120 6061-T6 R RANDOM TAL-114114120R-V 6312 <i>1 X 20' ROUND CORNER HEAT 385680</i> <i>386580</i>	11.42	20.00	PL_\$CLB	1.00						
18 ALU SHEET .040 (18G) 2024-T3 4B (4 X 12) FEAL-0404122024B 3118 <i>1 X 4' X 12' HEAT 18784388</i> <i>5292</i>	27.02	48.00	PI2_\$CLB	1.00						
19 ROUND CR 1 1018 RANDOM RCR-1-V 5292	53.40	20.00	PI_\$CLB	1.00						
20 ROUND 4140 HEAT TREAT 1 RANDOM R4140-1H-V 4919 <i>1 X 20' HEAT 141110</i> <i>177369</i>	21.36	8.00	PI_\$CLB	1.00						

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

Order - Sales

Copy

CO00073284

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Nit: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03963

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.

HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Alt : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Page

6

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
COUPE A LA SCIE SCIE 1		1.00	UN							
21 ROUND 4140 HEAT TREAT 5/8 RANDOM R4140-58H-V 4977 4K10 1 X 10' HEAT TREAT 75061935 TRANSIT ST-JEROME LE 12/02 COUPE A LA SCIE SCIE 1	10.43	10.00 20.00	PL \$CL8	1.00						
23 TUBE MEC 0.750 OD X .083 NS TME-0750N83 10058	11.82	20.00	PL \$PI	1.00						
1 X 20' R/L OFFER .083 HEAT 15C1472 AC13459-MM-12/02										

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.

Order - Sales

Copy

CO00073284

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°

CL10001056

Date

2018/02/08

Delivery date

2018/02/13

Your order N°

03983

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.

HAYNESBURT, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Page

7

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	#/O	IN	I	S	C
SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE			\$	0.00						

Conditions :

All sold and delivered materials remain the property of Acier Ouellette Inc. until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and provided by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the buyer. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer agrees to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within 5 (5) days with this document enclosed. Any return goods that has been damaged, cut or mislabeled cannot be returned. All goods returned must be within our authorization and are subject to a 25% restocking charge.

Prepared By :

Verified By :

Delivered By :

Time

Customer's Signature

Y

M

D

Total (\$CAD)

7 617.34

Deposit

0.00

Balance

7 617.34

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 MB: 514-336-4248 Ext.: 600-667-4248
Fax: 450-377-5696 Md: 514-336-4246 Ext.: 866-456-4242

Order - Sales**Copy** CO00073496

Billed to
DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

Ontario,
Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Customer N° CL10001056
Date 2018/02/09
Delivery date 2018/02/13
Your order N° 038983
Processed by Josianne Bourdon
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days
Page 1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND 4140 HEAT TREAT 5/8 RANDOM R4140-58H-V 4977 4 X 20' R/L 1 X 10' TRANSIT ST-JEROME LE 12/02 SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE	93.87	90.00	PI_QLB	5.00			4 X 20' 1 X 10'				
				0.00							
				0.00							

Total Weight (LBS) : 93.87**NIR : R-109516-6**

Conditions :
All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. At lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time	Customer's Signature	Y	M	D

Total (\$CAD) 297.17
Deposit 0.00
Balance 297.17

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 160611650.250x6.250
DATE: FEB 15 2018

PO BATCH NO: 038983/50422

MATERIAL CERT REC'D: YES
QUANTITY RECEIVED: 6'
QUANTITY INSPECTED: 6'
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250
THICKNESS RECEIVED: 0.250
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	CC-A-250/11
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 6170219
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR C
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if req)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET
SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS-4025 OR AMS 4027
OR ASTM B209

PART NUMBER: M6061T6S|XXX|THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)
EG. 0.063" THICK SHEET = M6061T6S.063

PREFERRED SIZE: .XXX BY 4FT BY 8FT

RELEASED
R 2009-09-10

B	REFORMAT DWG. ADD B209 SPEC (ZN D8-1). REF PAR 08-020A	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B	
DRAWING NO. M6061T6S		SHEET 1 OF 1	
TITLE 6061-T6 SHEET SPEC		SCALE NTS	
COPYRIGHT © 2001 BY DART AEROSPACE LTD. THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. AND IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

MILL TEST QUALITY CONTROL CERTIFICATE

ALNAN ALUMINIUM INC.

No. 55 JingHong Road Nanning Guangxi 530031, China

10

CUSTOMER
EMPIRE RESOURCES, INC.ADDRESS
2116 LINWOOD AVENUE 2ND FLOOR FORT LEE, NJ 07024, USAPRODUCT TYPE
Aluminum Alloy Plate

DATE: March 20, 2017

UNIQUE Lot Number	HEAT Number	Dimension (mm)	Dimension (inch)	Act Thick (mm)	Act Thick (inch)	UTS MPa	Alloy	Temper	Al	Ca	Mg	Si	Zn	Mn	Zn	D	Cr	Heat (%)	UTS (ksi)	Yield (ksi)	
Standard	Standard	4.300-4.375	0.169-0.172			6061	T631	remelted	0.05-0.10	0.05-0.10	0.7-0.8	0.7-0.8	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	24-28	24-28	25ksi
Standard	Standard	12.700-12.700	0.500-0.500			6061	T631	remelted	0.05-0.10	0.05-0.10	0.7-0.8	0.7-0.8	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	24-28	24-28	25ksi
Standard	Standard	25.400-25.400	1.000-1.000			6061	T631	remelted	0.05-0.10	0.05-0.10	0.7-0.8	0.7-0.8	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	24-28	24-28	25ksi
Standard	Standard	50.800-50.800	2.000-2.000			6061	T631	remelted	0.05-0.10	0.05-0.10	0.7-0.8	0.7-0.8	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	24-28	24-28	25ksi
Standard	Standard	101.600-101.600	4.000-4.000			6061	T631	remelted	0.05-0.10	0.05-0.10	0.7-0.8	0.7-0.8	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	0.15-0.25	24-28	24-28	25ksi
217030227	6170319	6.350*1201.9*2451.1	0.250*47.5*96.5	6.350	0.250	1.998	6061	T631	remelted	0.25	1.07	0.74	0.12	0.11	0.02	0.02	0.35	16.0	45.8	44.1	
217030228	6170319	6.350*1201.9*2451.1	0.250*47.5*96.5	6.350	0.250	1.998	6061	T631	remelted	0.25	1.07	0.74	0.12	0.11	0.02	0.02	0.35	16.0	45.8	44.1	
217030229	6170319	6.350*1201.9*2451.1	0.250*47.5*96.5	6.350	0.250	1.998	6061	T631	remelted	0.25	1.07	0.74	0.12	0.11	0.02	0.02	0.35	16.0	45.8	44.1	
217030230	6170319	6.350*1201.9*2451.1	0.250*47.5*96.5	6.350	0.250	1.992	6061	T631	remelted	0.25	1.07	0.74	0.12	0.11	0.02	0.02	0.35	16.0	45.8	44.1	
217031001	6170319	6.350*1201.9*2451.1	0.250*47.5*96.5	6.350	0.250	1.992	6061	T631	remelted	0.25	1.07	0.74	0.12	0.11	0.02	0.02	0.35	16.0	45.8	44.1	

ORIGIN OF GOODS AS ALNAN ALUMINIUM INC.

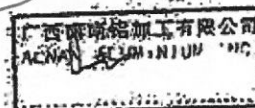
ACTUAL MILL CHEMICAL AND MECHANICAL PROPERTY TEST REPORTS IN IMPERIAL NOMENCLATURE REQUIRED PER S100

MATERIAL CONFORMS FOR ALLOY 6061, T631, AS PER Aluminum Association Standards-2003, ASTM B209-10, AMS QQA 250/11, AMS 4027 IN ALL ASPECTS.

COUNTRY OF MELT AND MANUFACTURE: CHINA

Issued by: 0451

Reviewed by: 0459



1/1

NO. 20184030

Version: 0

PAC 14V

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606H6B1.000x04.000
 DATE: FEB 15 2018

PO BATCH NO: 038983/0422

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astm B221</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 3B7163</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR C
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if req)

INSPECTED BY: DAS
11
 DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-09-03
MAD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZND7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	DS		
CHECKED	DS		
MFG. APPR.	DS		
APPROVED	DS		
DE APPR.	DS		
DATE	09.07.13		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	M6061T6B
REV B	SHEET 1 OF 1
TITLE	6061-T6 BAR
SCALE	NTS
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411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4
<http://www.extrudex.com>

MILL TEST

BILL TO EXTRUDEX ALUMINUM (QUEBEC) INC.	CERT CODE: 1	DIE NUMBER S 4657	DATE OF SHIPMENT Dec/08/2017	EXTRUDEX ORDER NO. 212394 - 2	MANIFEST NO. 382626
SHIP TO ACIER QUELLETTE	CUSTOMER PO 105987	ALLOY 6061	SALESMAN HOUSE ACCOUNTS	MADE IN CANADA	
SO DESCRIPTION FLAT 4" X 1"	CUSTOMER PART NUMBER SO04657	TEMPER T8	PART DESCRIPTION FLAT 4" X 1"	CERTIFICATION MILL TEST ASTM B221-14	

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation	Hardness Rockwell F	Conductivity
A.11	6061	Nov/28/2017	42.80	39.80	10.00	86.0, 86.8, 87.6	

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Al	Other
387163	A.11	6061	0.58	0.15	0.2	0.03	0.86	0.07	0	0.01	0	0
												0

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

T. Mohabir

Tulsiram Mohabir
Quality Control Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B1000 x 8.000
DATE: FEB 15 2018

PO BATCH NO: 038983/5042

MATERIAL CERT REQ'D: yes
QUANTITY RECEIVED: 12"
QUANTITY INSPECTED: 12"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
THICKNESS RECEIVED: 1.000
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astm B221</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	X (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 384855</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

	HRC	HRB	DURA	DUR D	TWEE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if req'd)

INSPECTED BY: DAC
1
DATE: 9 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T651076511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WW.WWW
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-09-03

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	DS		
CHECKED	DS		
MFG. APPR.	M6061T6B		
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. REV. B			
M6061T6B SHEET 1 OF 1			
TITLE SCALE			
6061-T6 BAR NTS			
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<http://www.extrudex.com>

MILL TEST

BILL TO EXTRUDEX ALUMINUM (QUEBEC) INC.	CERT CODE: 1	DIE NUMBER S	DATE OF SHIPMENT Mar/16/2017	EXTRUDEX ORDER NO. 203280 - 1	MANIFEST NO. 367046
SHIP TO ACIER QUELLETTE	CUSTOMER PO 103568	ALLOY 6061	SALESMAN HOUSE ACCOUNTS		
SO DESCRIPTION 8" X 1" FLAT BAR	CUSTOMER PART NUMBER DT05830	TEMPER T6	PART DESCRIPTION 8" X 1" FLAT BAR	MADE IN CANADA	
				CERTIFICATION MILL TEST ASTM B221-14	

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation	Hardness Rockwell E	Conductivity
A.11	6061	Mar/15/2017	49.80	46.50	12.50	92.8, 92.2, 92.5	

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sn	Sr	Co	Al	Other
384855	A.11	6061	0.62	0.14	0.21	0.04	0.88	0.07	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

David Natale
Quality Control Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL M6061T6B1.000x06.000
DATE FEB 15 2018

PO BATCH NO 03898360422

MATERIAL CERT REC'D. YES
QUANTITY RECEIVED: 36"
QUANTITY INSPECTED: 36"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
THICKNESS RECEIVED: 1.000
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astm B221</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 37241</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK

RECORD RESULTS BELOW

	HRC	HRB	DURA	DURID	WE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-03-03
MJP

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	GP		
CHECKED	AJS		
MFG. APPR.	M6061T6B		
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6B			
REV. B SHEET 1 OF 1			
TITLE 6061-T6 BAR			
SCALE NTS			
DATE 09.07.13			
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EXTRADEX
ALUMINUM CORP.

FAL-16-1C

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http://www.extrudex.com

CH-4172C

48672

MILL TEST

BILL TO EXTRUDEX ALUMINUM (QUEBEC) INC.	CERT CODE: 1	DIE NUMBER S 4658	DATE OF SHIPMENT Sep/07/2017	EXTRUDEX ORDER NO. 208405	MANIFEST NO. 377291
SHIP TO ACHER CAMPI	CUSTOMER PO 106802	ALLOY 6061	SALESMAN HOUSE ACCOUNTS	MADE IN CANADA	
SO DESCRIPTION 1" X 6" FLAT BAR	CUSTOMER PART NUMBER DY04658	TEMPER T6	PART DESCRIPTION 1" X 6" FLAT BAR	CERTIFICATION MILL TEST ASTM B221-14	

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation	Hardness Rockwell F	Conductivity
A.11	6061	Sep/07/2017	42.80	40.30	10.30	90-9,91.1,91.5	

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Al	Sr	Co	Al	Other
37241	A.11	6061	0.576	0.216	0.189	0.05	0.832	0.056	0	0.023	0.019	0	0	0	0

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

T. Mohabir

Tulsiram Mohabir
Quality Control Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304B1.000X2.500
DATE: FEB 15 2018

PO BATCH NO: 038983/60422

MATERIAL CERT REC'D: Yes
QUANTITY RECEIVED: 12"
QUANTITY INSPECTED: 12"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
THICKNESS RECEIVED: 1.000
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astm A276</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 265740</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK
RECORD RESULTS BELOW

	HRC	HRB	DURA	DUROMETER
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
(NOTE: AISI 303 NOT ACCEPTABLE)
△ SPECIFICATION: ASTM A276 OR ASTM A240

△ PART NUMBER:

M304B T.TTT | X | WWW.WWWW/
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
AND "WWW.WWWW" = WIDTH IN INCHES

△ EG. 0.5" x 3.0" BAR = M304B0.500X03.000
△ EG. 0.5" x 12.0" PLATE = M304B0.500X12.000

RECEIVED
2010-11-30

REV.	DESCRIPTION	DATE
C	ADDED PLATE TO PURCHASE MATERIAL ADDED PLATE FROM 304/316 BAR TO 304/316 BAR/PLATE	10.11.25
B	REFORMAT DING. ADD SPECS (2N DB-1).	09.07.15
A	NEW ISSUE	05.08.10
DESIGN	DART AEROSPACE LTD	
DRAWN	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DRAWING NO. M304B	REV. C
MFG. APPR.	TITLE 304/316 BAR/PLATE	SHEET 1 OF 1
APPROVED		SCALE NTS
DE APPR.		
DATE	10.11.25	

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Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) , 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.I.
Stabil.: 36100 BOLLANO (Italia) - Via A. Volta, 4
Telephone number : 0039 (0) 444888211

Clienti / Kunden / Clients / Clients
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

Produttore: ACCIAIERIE VALBRUNA S.P.A.
regolato/regulated/produttore

Stato di finitura: Hot rolled Decoiled Annealed Hot rolled
Lieferzustand: Lieferzustand

Specifiche:
Abmessungen / Dimensions / Dimensions

VEN 0 304/304L A (0)
AMS 5847 J S30403 A
ASME SA183 2013 B8 CLASS1 (2)
ASME SA479 2013 S30400/03 A (5)
ASTM A262 2013 PRACTICE E
ASTM A320 2011A B8 CLASS1
ASTM A479 2013A S30400/03 A
NACE MR0175 2008 S30400/03 A (8)

AISI 304/304L
AMS-QQ-S-763 C 304/304L A
ASME SA276 2013 S30400/03 A (3)
ASTM A162 2012B S30400/03 A (6)
ASTM A276 2013A S30400/03 A
ASTM A370 2013
EN 5-892 B/1 304/304L
QQ-S-763 F 304/304L A

Avviso di Spedimento: D-VI14098370
Lieferungsfreigabe: 14.11.14

Ordine nr: 411005009 Stock - Canada
Bestellnummer: 411005009

Tipo di Emboscatura: E-AOD
Lieferzustand: Lieferzustand

Certificato nr: MEST610842/2014/
Prüfungsfreigabe

Conferma ordine nr: E14011348
Bestellnummer: E14011348

Marchio di Fabbrica:
Zusatz des Herstellers
Trade mark
Signe de l'usine productrice

Portone del Collaudatore:
Gezeichnet des Werkstoffprüfers
Inspector's stamp/Signature des Inspecteur



AMS 5838 H S30400 A
ASME SA182 2013 S30400/03 A (1)
ASME SA320 2013 B8 CLASS1 (4)
ASTM A183 2011A B8 CLASS1
ASTM A314 2008 S30400/03
ASTM A479 2013 S30400/03 (7)
NACE MR0103 2010 S30400/03 A

- (0) PROVA
(1) For products machined directly from bar refer to ASME SA479.
(2) SECTION II PT.A 2013 EDITION
(3) SECTION II PT.A 2013 EDITION
(4) SECTION II PT.A 2013 EDITION
(5) To ASTM A479.
(6) ANSINACE MR0175/ISO 15156-3, amended edition 2008-10-15

- (1) SECTION II PT.A 2013 EDITION
(2) SECTION II PT.A 2013 EDITION
(3) SECTION II PT.A 2013 EDITION
(4) SECTION II PT.A 2013 EDITION
(5) For products machined directly from bar refer also
(7) Chemical analysis only.
(8) Technical circular 12011 Published 2011-08-14

Quantità: 304/304L
Menge: 304/304L

Marchio: AISI
Markierung: AISI

Tolleranza: ASTM A484-14 TABLE 5
Toleranz: 0,0025 mm

Permeabilità: 304/304L
Durchlässigkeit: 304/304L

Pos. nr. Pos. nr. No. de pos.	Opzione Option Option	Dimensioni - In Dimensions Dimensions	Lunghezza - In Length Length	Colore Color Color	Pezzi Pieces Pieces	Peso - UG Weight Weight	Logo nr. Logo nr. Logo nr.
0030	Flat	2,5000 x 1,0000	144 / 153	265140		2,584	418504340

TEST ALLO STATO DI FORNITURA
Test on delivery condition Prüfung auf Lieferzustand Prüfung auf Zustand Prüfung auf Zustand

TEST	Prova Test Test	F	Spessore Thickness Thickness	Spessore Thickness Thickness	Risultato Result Result	Allegato Attachment Attachment	Stabilità Stability Stability	Risultato Result Result	Durezza Hardness Hardness
Valori richiesti 1 After processing values After processing values	min max		30		75 115	40	50		140 223
A	12,5	68	L	46	91	55	71		186

TEST	min	max
A Grain size for ASTM E112		6

Mechanical properties according to ASTM A370.

Analisi chimica

Chemical composition / Chemical composition / Chemical composition

Colore Color Color	min min min	0,005	1,00	2,00	10,00	1,00	1,00	0,01	0,005	0,005	0,005	0,005	0,005	0,005	0,005	0,005	0,005
265140	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %						
	0,016	0,48	1,61	18,06	0,25	0,40	8,04	0,125	0,030	0,020	0,050						

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Annealing temperature: 1940 °F for 1 hr/min.

Micro and macro etch test: OK

Reduction ratio > 4 : 1

Intergranular corrosion test per ASTM A262 pract. E: ok.

Vicenza, 01/12/14 vccm 04/12/2014	Il collaudatore di stabilimento / der Werkstoffprüfer / Works Inspector / L'agent d'usage M. Rizzotto	Pagina: 1 di 2
---	--	----------------

Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) , 3.1

39100 VICENZA (Italia) - Viale della scienza, 25 r.l.
Sede: 39100 BOLZANO (Italia) - Via A. Volta, 4
Telephone number : 0039 (0) 44468211

Clienti / Kunden / Clients
VALBRUNA CANADA LTD
8724 HOLLGATE CRESCENT
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**
Hersteller/Produzierendes Unternehmen

QUALITY MANAGEMENT SYSTEM CERTIFICATE NUMBER

Avviso di Spedizione: D-VI14038370
Lieferungs- / Frachtpapier-Nr.:

Ordine nr: 411005009 Stock - Canada
Bestell-/Warenverkehrsbeleg-Nr.:

Tipo di Elaborazione: E-AOD
Erzeugnisbezeichnung/Herstellungszustand:

Certificato nr: MES7810842/2014/
Prüfungszertifikat-Nr.:

Contorno ordine nr: E14011346
Bestell-/Frachtpapier-Nr.:

Marchio di Valbruna:
Zeichen des Unternehmens:
Logo mark

Pulsone del Collaudo:
Stempel des Unternehmens/Prüfung:
Empfänger - Stempel/Transport für Empfänger



Stato di finitura: Hot rolled Descalced Annealed Hot rolled
Lieferzustand/Herstellungszustand des Produktes:

Absence of cracks at 20 x magnification after bend test.
Material is OFAS Compliant

Senza stato soddisfacente tutte le condizioni richieste
Die genannten Anforderungen sind zu erfüllen
The material has been inspected in accordance with the requirements
Le matériau a été vérifié conforme aux exigences

Controlli anti-inquinamento: OK
Verschmutzungsfrei: geprüft/visuell bestätigt
Any other testing method: OK
Qualitätsanforderungen: OK

Controlli visivi e dimensionali soddisfatti le esigenze
Sichtkontrolle und Dimensionen sind entsprechend
visual inspection and dimensional check satisfactory
Grafische und dimensionale Anforderungen

Mixed and manufactured in Italy No welding or weld repair Material free from Mercury contamination
Wir declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex 1, 4.3 by TÜV and LLOYD'S
Any act of tampering, modification, alteration, counterfeiting and/or falsification under any other name which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.
The supplied product conforms to requirements explicitly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Product.

Q.C. Reviewed
K11-27-15

Vicenza, 01/12/14 vom Stichtag	Il collaudatore di stabilimento / der Werkstatteinverständiger / Werks-Inspektor / L' agent d' usine M. Rizzotto	Pagina - 2 di 2
--------------------------------------	---	-----------------

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304162.500X02.500
 DATE: FEB 15 2018

PO BATCH NO: 088983 / 044220

MATERIAL CERT REQ'D: YES
 QUANTITY RECEIVED: 13"
 QUANTITY INSPECTED: 13"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.500
 THICKNESS RECEIVED: 2.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<u>Aster A276</u>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<u>Heat # 56171148</u>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
	HRC	HRB	DURA	DURE
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if

INSPECTED BY: DAS 11
 DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△C PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
(NOTE: AISI 303 NOT ACCEPTABLE)

△C SPECIFICATION: ASTM A276 OR ASTM A240

PART NUMBER: M304B | T. ITT | X | WWW.WWW |
THICK | WIDTH

WHERE "T. ITT" = THICKNESS IN INCHES
AND "WWW.WWW" = WIDTH IN INCHES

△C EG. 0.5" X 3.0" BAR = M304B0.500X03.000
EG. 0.5" X 12.0" PLATE = M304B0.500X12.000

RELEASED
2010-11-30

C	ADDED PLATE TO PURCHASE MATERIAL. ADDED PLATE RELATED SPECIFICATIONS, AND EG.; CHANGED TITLE FROM "304/316 BAR" TO "304/316 BAR/PLATE"	MB	10.11.25
B	REFORMAT DWG. ADD SPECS (ZN D6-1). REF PAR 08-020A	CP	08.07.15
A	NEW ISSUE	PH	05.06.10
REV	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	PH		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH		
DATE	10.11.25		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M304B		REV. C SHEET 1 OF 1	
TITLE 304/316 BAR/PLATE		SCALE NTS	
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BOLLINGHAUS
STEEL

Bollinghaus Steel, SA
DIN EN ISO 9001:2008
TUV CERT No. 01 100 030458

Abnahmeprüfzeugnis / Test Certificate / Cert. de Qualidade

EN 10204:2004 / 3.1

No.: / Nr.: / N.º:

0000134897

Unsere interne Verweisung / Our int. Ref / N.º ref. int.

5600037510 000030

Datum / Date / Data

26.10.2017

Specification / Standards / Normas

TYPE 304/LUNS S30400 and TYPE 304/LUNS S30403 acc. to ASTM A276/A276M-15a, ASTM A182/A182M-16a, ASTM A193/A193M-16, ASTM A479/A479M-16a, ASTM A320/A320M-15a, ASTM A314-15, ASTM A282-15 Pract. E, AMS QQ-S-763D, AMS 5639J, AMS 6847K, ASME SA479/SA479M, ASME SA276, ASME SA182/182M, ASME SA 193/SA193M, ASME SA320/SA320M, NACE MR0175-2015, execution as per ASTM A484/A484M-15.

Kunde / Customer / Cliente

Endgültiger Kunde / Final Customer / Cliente Final

Bestell Nr./Order Nr./ Enc.Nr.

C110117

Bestell Nr./ Order Nr./ Enc.Nr.

C110117.06

Produktgruppe / Product Group / Grupo Produto

Gewicht / Weight / Peso

1.197 lb

Bunde / Bundle / Atados

01

AISI 304/L SQ 2-1/2"

Werkstoff-Nr.
Material-no.
Qualidade

1.4307

Werkstoff-Normbezeichnung / Material standard grade / Norma de material

X 2 CrNi 18-9

Beschreibung / Description / Descrição

Stainless steel square bars, hot rolled, heat treated, straightened and pickled.
US DFAR 252.225-7008: MELT SOURCE: United Kingdom / MFG: Portugal.

Batching Nr.
Cast no. / Fuso nr.

58171148

Chemische Analyse in % / Chemical composition in % / Análise química em %

	C	0.018	Si	0.270	Mn	1.520	P	0.035	S	0.028	Cr	18.210	Ni	9.070			
	Mo	0.450	Co	0.190	Cu	0.450	N	0.070	Ti	0.002	Al	0.005	-	-			

Proben Nr. Test no. Amostra no.	ASTM E398							ASTM A370						
	Hardness							Mechanical Properties						
	Impact Test							Tensile Strength						
	Charpy V							Yield strength						
	[J]							Rp 0.2 %						
	224.0							52.8						

Visual Control Visual inspection Inspeção visual		<input checked="" type="checkbox"/> Ok	ASTM E10 Hardness Dureza		155 [HB]	Kernprobe IC Test Carbide inspection		<input checked="" type="checkbox"/> Ok	Tratamento térmico Annealed Quenched 1650 °F (900 °C) (water quenched)
ASTM A484 Metallographic Dimensional inspection Inspeção dimensional		<input checked="" type="checkbox"/> Ok	ASTM E112 Kernprobe Grain size Tamanho de grão		-	Authorized inspection Representative (Inspector da Qualidade) 396 			
Verwechslungsprüfung Test of identity Teste de identificação		<input checked="" type="checkbox"/> Ok	Metallographic Untersuchung (Macroscopic test)			Vasco Ferreira (G - VF)			
Bollinghaus Steel, SA									
Hiermit bestätigen wir, dass das Material der oben genannten									

Bemerkungen / Remarks / Observações
Country of origin: Portugal. No weld repair done.
Material is free of mercury and radiation contamination.

Hiermit bestätigen wir, dass das Material der oben genannten Spezifikation entspricht.
We confirm that this material meets the specification according to the mentioned standards.
Confirmamos que este material respeita as especificações de acordo com as normas referidas.

P0,1346

NS-

CO

73284

Don't

206126

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304B0.625X4.000
DATE: FEB 15 2018

PO BATCH NO: 038983/60422

MATERIAL CERT REQ'D: yes
QUANTITY RECEIVED: 4"
QUANTITY INSPECTED: 4"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625
THICKNESS RECEIVED: 0.625
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>Astm A276</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(X)	N	<u>Heat # 56171702</u>
CORRECT MATERIAL IDENTIFICATION	(X)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK

RECORD RESULTS BELOW

	HRC	HRB	DURA	DUR E	ME
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in: the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
(NOTE: AISI 303 NOT ACCEPTABLE)

△ SPECIFICATION: ASTM A276 OR ASTM A240

△ PART NUMBER: M304B | T.TTT | X | W.W.W.W.W |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
AND "W.W.W.W.W" = WIDTH IN INCHES

△ EG. 0.5" x 3.0" BAR = M304B0.500X03.000
EG. 0.5" x 12.0" PLATE = M304B0.500X12.000

RELEASED
2010-11-30

REV.	DESCRIPTION	DATE
C	ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE FROM "304/316 BAR" TO "304/316 BAR/PLATE"	10.11.25
B	REFORMAT DWG. ADD SPECS (2N DB-1).	09.07.15
A	NEW ISSUE	03.06.10
DESIGN	DRAWING NO.	REV. C
DRAWN	M304B	SHEET 1 OF 1
CHECKED		SCALE
MFG. APPR.		NTS
APPROVED		
DE APPR.		
DATE	10.11.25	

304/316 BAR/PLATE
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. NO DISSEMINATION TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.

BOLLINGHAUS STEEL Bollinghaus Steel, SA PIN EN 100 030456 TÜV CERT No. 01 100 030456	Abnahmeprüfung / In-Test / Certificate / Cert. de Qualidade EN 10204-2004 / 3.1		No.: / No.: / Nr.: 0000136385																													
	Unsere interne Verzeichnung / Our Int. Ref. Nr. / ref. Int. 5600038163 000190		Datum / Date / Data 07.12.2017																													
Specification / Standards / Normas TYPE 304UNS 304000 and TYPE 304LUNS 304003 acc. to ASTM A276/A276M-16, ASTM A182/A182M-16, ASTM A193/A193M-15, ASTM A479/A479M-15a, ASTM A320/A320M-15a, ASTM A314-15, ASTM A392-15 Prod. E, AMS QQ-S-763D, AMS 5636J, AMS 5647K, ASME SA479/SA479M, ASME SA276, ASME SA182/182M, ASME SA193/SA193M, ASME SA320/SA320M, NACE MR0175-2015, association de per ASTM A479/A479M-15.																																
Kunde / Customer / Cliente		Endgültiger Kunde / Final Customer / Cliente Final																														
Bestell Nr./Order Nr./Enc.Nr. C111684		Bestell Nr./Order Nr./Enc.Nr. C111684.3																														
Produktgruppe / Product Group / Grupo Produto ASTM 304L FLAT 5/8 X 4"		Gewicht / Weight / Peso 1.332 lb		Bundle / Bundle / Alados D1																												
Werkstoff-Nr. Material no. Qualidade 1.4307		Vertriebs-Normbezeichnung / Material standard grade / Norma do material X 2 CrNi 18-9																														
Beschreibung / Description / Descrição Stainless steel flat bars, hot rolled, heat treated, straightened and pickled. US OFAR 252.223-7009; MELT SOURCE: United Kingdom / MFG: Portugal.																																
Chemical Analysis in % / Chemical composition in % / Análise química em % <table border="1"> <tr> <td>C</td> <td>0.018</td> <td>Si</td> <td>0.300</td> <td>Mn</td> <td>1.720</td> <td>P</td> <td>0.034</td> <td>S</td> <td>0.027</td> <td>Cr</td> <td>16.250</td> <td>Ni</td> <td>8.070</td> </tr> <tr> <td>EN 10088-2</td> <td>0.470</td> <td>Co</td> <td>0.254</td> <td>Cu</td> <td>0.520</td> <td>N</td> <td>0.070</td> <td>Ti</td> <td>0.002</td> <td>Al</td> <td>0.005</td> <td>-</td> <td>-</td> </tr> </table>					C	0.018	Si	0.300	Mn	1.720	P	0.034	S	0.027	Cr	16.250	Ni	8.070	EN 10088-2	0.470	Co	0.254	Cu	0.520	N	0.070	Ti	0.002	Al	0.005	-	-
C	0.018	Si	0.300	Mn	1.720	P	0.034	S	0.027	Cr	16.250	Ni	8.070																			
EN 10088-2	0.470	Co	0.254	Cu	0.520	N	0.070	Ti	0.002	Al	0.005	-	-																			
Problem Nr. Test no. Análise no. 3008663.01.01		ASTM E399 Keroschlagprüfung Impact Test Resistência (Charpy V) [J] 205.0			ASTM A370 Zugfestigkeit Tensile strength Tensão de ruptura Rp 1.0 % [N/mm²] 58																											
Visual inspection Inspeção Visual <input checked="" type="checkbox"/> OK		ASTM E10 Härte Hardness Durezza [HB] 195		ASTM A262 Practice E Kornstrukturprüfung IC Test Corrosão intermetálica <input checked="" type="checkbox"/> OK																												
Dimensional inspection Inspeção dimensional <input checked="" type="checkbox"/> OK		ASTM E112 Korngröße Grain size Tamanho de grão 0		Annotated Quenched 1600 °F (1050 °C) (water quenched)																												
Metallographic inspection Test of metallography Tipo de identificação <input checked="" type="checkbox"/> OK		Metallographic inspection Micrographic test Material free from impurities (AR 100x etc.) <input checked="" type="checkbox"/> OK		Bollinghaus Steel, SA																												
Bemerkungen / Remarks / Observações Country of origin: Portugal. No weld repair done. Material is free of mercury and radiation contamination.		Hiermit bestätigen wir, dass das Material der oben genannten Spezifikation entspricht. We confirm that this material meets the specification according to the mentioned standards. Confirmamos que este material respeita as especificações de acordo com as normas referidas.																														

13.SPG03-10.K

207800
 304L
 7/12/21
 2018

MATERIAL RECEIPT INSPECTION FORM

MATERIAL MT-4140QT-R1.375
DATE FEB 15 2018

PO BATCH NO 058983/01220

MATERIAL CERT REQ'D yes
QUANTITY RECEIVED: 24"
QUANTITY INSPECTED: 24"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.375
THICKNESS RECEIVED: 1.375
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<u>A193</u>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<u>Heat # 75063196</u>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DURA	DURF
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION **ENGINEERING SIGNOFF**

INSPECTED BY: DAS
11
DATE: 9-80 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received.

CERTIFICATE OF COMPLIANCE / CERTIFICAT DE CONFORMITÉ

Order No. / No. Commande	CUSTOMER / CLIENT	Packing slip / No. d'expédition	DATE
Order No. / No. Commande	CUSTOMER / CLIENT	Packing slip / No. d'expédition	DATE
AC00013457	ACIER OUELLETTE INC	L35111-01	12-02-18
MATERIAL ID# / No. MATÉRIEL	GRADE / NUANCE	HEAT TREATMENT / TRAITEMENT THERMIQUE	HEAT / COULEE
2016-2650	SAI 4140	Q.T.S.R / TREMPÉ REVENU - RECUIT DE DÉTENTE (RONDS)	75063196

SHAPE / FORME	SIZE / DIMENSION	SPECIFICATIONS
Round / Rond	1.3750" in.	ASTM A193/193M-01, A434-90a-BC, A322-07
PAYS D'ORIGINE:	U.S.A.	

CHEMICAL COMPOSITION / ANALYSE CHIMIQUE

	Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
mini/maxi	0.380 0.430	0.150 0.350	0.750 1.000	0.035
actuel (%):	0.420	0.250	0.860	0.011
	Sulfur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
mini/maxi	0.040	0.800 1.100	0.000 0.250	0.150 0.250
actuel (%):	0.019	0.970	0.130	0.170
	Copper (Cu)	Vanadium (V)	Aluminium (Al)	Tungsten (T)
mini/maxi	0.350	---	---	---
actuel (%):	0.240	0.004	0.026	0.000

MECHANICAL PROPERTIES / PROPRIÉTÉS MÉCANIQUES

Yield strength / Élasticité	Tensile / résistance à la traction	Elongation / allongement (%)	Reduction of area / surface (%)	Hd/dure surface
132,200	146,900	21.0%	59.0%	304 BHN

No weld repairs performed during the manufacturing of this product. We hereby certify that the above results have been verified and conform to the above mentioned specifications. Material is Mercury free, without radioactivity.

Aucune réparation exécutée par soudure durant la fabrication de ce produit. Par la présente nous attestons que les résultats ci-haut mentionnés ont été vérifiés et sont conformes aux spécifications. Pas de contact au Mercure, sans radioactivité.

Keith BALL - Branch Manager



DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. M4140H-R	REV. A SHEET 1 OF 1
DATE 05.02.21		TITLE 4140 ROUND BAR	SCALE 1:1
A	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02 / -A-434-BC /
-A193-03-GRADE-B7 / -A29-03 / -A322-91 OR

UNS # - G41400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES
DIA.

EG. 7/8" ROUND BAR = M4140H-R0.875

RELEASED
05 03 25 #

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S18GA
DATE: FEB 14 2018

PO BATCH NO: 038983/5042197

MATERIAL CERT REC'D: yes
QUANTITY RECEIVED: 256 PZ
QUANTITY INSPECTED: 256 PZ
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.50
THICKNESS RECEIVED: 0.50
SHEET SIZE ORDERED: 4X8
SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<u>Astm A240</u>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<u>Hest #088E</u>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (I)

INSPECTED BY: DAS 11
DATE: 9-00 FEB 14 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

#3425

less-1897600700

495614 RT-1875



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Date: 10/26/2015 Page: 1

Certificate: 231861 2 Mail To:

Ship To:

Customer: 007035 501

Steel: 306

Finish: 2B

Corrosion: ASTM A262/15 A, 190Bend-OK

NAS Order: PN 0069821 14

Your Order: 781026

PRODUCT DESCRIPTION

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED, UNS 30400
ASTM A240/15b, A480/15, A666/15, ASME SA240/15, SA480/15, SA666/15
CHEM ONLY ON FOLLOWING ASTM: A276/15, A479/15, A484/15, A312/15
CHEM ONLY ON FOLLOWING ASME: SA312/15, SA479/15
AMS 55133 XTRK, MIL-8-5059D AMENDS (X CHROM WELAS)
NACE MR0175/ISO 15156-3:2009 A, MR0103/07, Q3766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900P, WATER QUENCHED

REMARKS

Mat'l is free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1, EN 10204 3.2 Compliant
Material is free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mfg. Sys. in Conf. w/ISO 9001
Melted & Manufactured in the USA; Mat'l is DPAHs Compliant

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
03088E B	03088E B		.0480	48.0000	20,720 COIL		1	1	74261496

CHEMICAL ANALYSIS									
CN(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)									
HEAT	CN	O %	CR %	CU %	MO %	N %	NI %	P %	S %
088E	US	.0650	18.0445	.4525	1.6575	.3220	.0598	8.0190	.0290
SI %									
.2670									

MECHANICAL PROPERTIES										
Product Id#	Coil #	1 4		UTB	20C	.2% YS	20C ELONG	% Hard	Tail	Grain
		% F	% F							
				XGI		XGI	%-2"	RB	Hard	No.
03088E B	03088E B	P F	100.15		52.12		47.23	88.00	84.00	10.00
										Technical

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items

Technical
Dept. Mgr.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION:
MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

DART M-NUMBER
IDENTIFIER
1P
2D
NONE
3P
4P
6P
7P
8P

FINISH
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8

PART NUMBER: M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.108375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2186	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-122

D	ADDED GAUGES 0-7.	AJS	15.01.06
C	DEFINED FINISH OPTION (ZN, CP) AND EXAMPLE OF MATERIAL FIN WITH FINISH OTHER THAN 2B (ZN B5).	MB	12.09.20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C8-1), REF PAR 08-020A	CP	09.06.01
A	NEW ISSUE	BY	01.09.24
REV.	DESCRIPTION	DATE	
DESIGN	DS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	15.01.06		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M304S			
SHEET 1 OF 1			
TITLE 304/316 SS SHEET			
SCALE NTS			
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S206A
DATE: FEB 14 2018

PO BATCH NO: 038983/04219

MATERIAL CERT REQD: Yes
QUANTITY RECEIVED: 96 Pcs
QUANTITY INSPECTED: 96 Pcs
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.40
THICKNESS RECEIVED: 0.40
SHEET SIZE ORDERED: 4x8
SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	Astm A240
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	Heat # 499 f
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.

RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR C	WEE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 14 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION:
MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

FINISH IDENTIFIER
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8

PART NUMBER:

M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.08375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325



D	ADDED GAUGES 0.7.	AJS	15.01.06
C	DEFINED FINISH OPTION (ZN CB) AND EXAMPLE OF MATERIAL FIN WITH FINISH OTHER THAN 2B (ZN BS).	MB	12.09.20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1). ADD GAUGE REF (C8-1). REF PART 08-020A	CP	09.06.01
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	AJS		
CHECKED			
MFG. APPR.	M304S		
APPROVED			
DE APPR.			
DATE	15.01.06		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M304S			
TITLE 304/316 SS SHEET			
SHEET 1 OF 1			
SCALE NTS			
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RELEASED
2015 FEB 04
ECU 15-1222 97

FES-20G48304-2B

N.A.S.
North American Stainless Canada, Inc.
740 Imperial Road North
Guelph, ON N1K 1Z3
Canada

METALLURGICAL TEST REPORT

Date: 9/22/2017 **Page:** 1

Stool: 304.

Exhibit 2B

Corrosion: ASTM A262/15 A, 1B, and -OX

104 dty5.

Cardiac
Certificate: 335866 1 Mail To:

Customer: 007036 501

4500825594
NNS Order# PN 0083329 06

REMARKS:

REMARKS:
Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; ROHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: VAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mst. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DPARS Compliant

PRODUCT DESCRIPTION
STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED; UNS 30400
ASTH 2240 16a, A480/15b, A566/15, ASSE 3430/13, SA480/15, SA665/15
CHEM ONLY ON FOLLOWING ASTM: A276/17, A479/17, A484/16, A312/16
CEN ONLY ON FOLLOWING ASTM: SA312/13, GR479/13
AMS 55117 XDRK, MIL-B-5052D AENDS (X CHRON MEAS)
NACE N01075/ISO 15156-3 2009 A, FRO103/07/Q08756D-A X KAO DEAM
MIN. SOLUTION ANNEAL TEMP 1500F, WATER QUENCHED

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
01499F A	01499F A		.0360	48.0000	15,770	COIL	3	1	16005446

with Accreditation Bureau, ISO/IEC 17025, Certificate# E2323

CHEMICAL ANALYSIS

ES(Spain)	US(United States)	ZA(South Africa)	JP(Japan)
CM(Country of Mali)			

[illegible]

MECHANICAL PROPERTIES

Product Id#	Coil #	1 0 1 0 1	UTS KSI	20C KSI	.2% KSI	Y8 KSI	20C KSI	ELONG %	HARD RB	Tail Hard	Grain No.
014697 A	01499F A	F T	102.88	\$2.00	53.89	86.00	85.50	10.00			

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

9/22/2017

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6S.040
DATE: FEB 15 2018

PO BATCH NO: 032983/6042199

MATERIAL CERT REQD: Yes
QUANTITY RECEIVED: 96 P12
QUANTITY INSPECTED: 96 P12
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.40
THICKNESS RECEIVED: 0.40
SHEET SIZE ORDERED: 4X12
SHEET SIZE RECEIVED: 4X12

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	QQ-A-250/11
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 016082345/7
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WES
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if reqd)	
INSPECTED BY: <u>DAS</u> <u>11</u> 9-89	DATE: <u>FEB 15 2018</u>	SIGNED OFF BY: _____	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET
SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS-4025 OR AMS 4027
OR ASTM B209

PART NUMBER: M6061T6S XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)
EG. 0.063" THICK SHEET = M6061T6S.063

PREFERRED SIZE: XXX BY 4FT BY 8FT

RELEASED
R 2009-08-10

B	REFORMAT DWG. ADD B209 SPEC (ZN D8-1). REF PAR 08-020A	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6S			
SHEET 1 OF 1			
TITLE 6061-T6 SHEET SPEC			
SCALE NTS			
DATE 09.07.13			
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AMAG

ROLLING

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 89050631

01 / 1

Rev.: 0

Seite / page:

1 von / of 2

Datum / date:

2017 05 18

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, NADCAP

Auftraggeber / customer:	Bestell Nr. / order no.:	C 73858
	Datum / date:	2017 01 27
Warenempfänger / consignee:	Auftragsbest. Nr. / order confirm no.:	125470
	Datum / date:	2017 01 30
	Lieferschein Nr. / delivery note:	89050631
	Datum / date:	2017 05 30

Form / form: Sheet	Bedingungen / terms:
Werkstoff / material: 6061	Technische Lieferbedingungen / techn. spec.:
Zustand / temper: T6	AMS-QQ-A-250/11, 08.1997
Dim. / dim.: [inch]: 0,040x48,00x144,00	ASTM B 209 - 14
	AMS 4027N, 07.2008
	Cessna CMMP019, Rev. D, 09-07-01
	Cessna CMMP025, Rev. V, 2-20-15
	Sondervorschrift / special terms:

AB-Nr. Order No.	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material	Werkstoff Material
03	63212/01	00	01/0082345/7	6061	1254700013	2339,065 lbs	87		
03	63212/01	00	01/0082345/7	6061	1254700014	2343,474 lbs	87		

Chemische Zusammensetzung (%) - Gewichtszusammensetzung (%) - Chemical composition (%) - weight proportion (%) (OES)											
Order No. / Auftr.Nr.	Material	Si	Fe	Cu	Mn	Mg	Cr	Zn	Pb	Others Each	Others Total
01/0082345/7	6061	0,10	-	0,15	-	0,80	0,04	-	-	-	-
	spec. min.	0,10	0,70	0,40	0,15	1,20	0,35	0,25	0,15	0,05	0,15
	spec. max.	0,87	0,43	0,24	0,13	0,85	0,17	0,05	0,03	0,02	0,03
	actual										

Zugprüfungen / Tensile tests							
BNr/Los	Zustand	Richtung	Tests	UTS	YS	A2	
Lot/No.	temper	direction		[ksi]	[ksi]	[%]	
			spec. min.	42,0	35,0	10	
			spec. max.	-	-	-	
63212/01	T6	LT	5	from	49,2	43,2	13
63212/01	T6	LT		to	49,5	43,4	13

Sonstige Prüfungen / Other tests:
Biegeversuch: OK. / Transverse bend test: OK.
Maßkontrolle: OK. / Dimensional Check: OK.
Oberfläche: OK. / Surface inspection: OK.

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich - info@amag.at
AMAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria - info@amag.at

AK 1861

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M2024T35.040
DATE: FEB 15 2018

PO BATCH NO: 038483/50422

MATERIAL CERT REQ'D: YES
QUANTITY RECEIVED: 48^m
QUANTITY INSPECTED: 48^m
QUANTITY REJECTED: 0

THICKNESS ORDERED: 7040
THICKNESS RECEIVED: 1040
SHEET SIZE ORDERED: 4x12
SHEET SIZE RECEIVED: 4x12

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>QQ-A-250/4</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Heat # 18784308</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR C
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if

INSPECTED BY: DAS 11
DATE: 9 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET
SPECIFICATION: QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS-4037
OR ASTM B209

PART NUMBER: M2024T3S XXX THK

WHERE ".XXX" = SHEET THICKNESS (IN INCHES)
EG. 0.063" THICK SHEET = M2024T3S.063
PREFERRED SIZE: .XXX BY 4FT BY 10FT

B	REFORMAT DWG. ADD ASTM B209 SPEC (ZN DB-1), PAR	CP	09.07.07
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.07		
DART AEROSPACE LTD			
HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M2024T3S			
TITLE 2024-T3 SHEET SPEC			
REV. B			
SHEET 1 OF 1			
SCALE NTS			
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RELEASED
2009-09-03
JNP

#3118

FEAL-0404122024K K02547
47580

SHIP TO:

SOLD TO:

KAISER
ALUMINUM
Trentwood Works - Spokane, WA 99215
Phone: (800) 387-2586

CERTIFIED TEST REPORT

Serial Number
4440764

CUSTOMER PO NUMBER: C73420-2	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RINLOAD: 10375171	GOVT CONTRACT NUMBER:
Kaiser Order No: 1223873-2	SHIP DATE: 20-NOV-2016	ALLOY: 2024	CLAD: SARE	TEMPER: T3
WEIGHT SHIPPED: 3298 LB	QUANTITY: 117 PCS EST.	TRUCK #/R: 2093585	GAGE: 0.0400 IN (1.0160 MM)	PRODUCT DESCRIPTION: HT Flat Sheet
		DIAMETER/WIDTH: 48.000 IN (1219.2 MM)		LENGTH: 144.000 IN (3657.6 MM)

MHU 2087049: LOT 18784388: 117 pieces: **0625780**

Certified Specifications

✓ AMS 4037/RevQ
CMMP 019/RevD

✓ AMS-QC-A-250/4/RevB
✓ CMMP 025/RevV

✓ ASTM B 209/Rev14

Test Code: 1594
Lot: 18784388

Cast 282

Drop 56

Test Results
Ingot 4

Melted in USA

(ASTM E8/B657)
(EN 2002-1)

Tensile: Temper
T3

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
86.8 : 87.2
(461 : 463)

Yield KSI (MPA)
45.3 : 45.5
(312 : 314)

Elongation %
18.5 : 17.3

(ASTM E1251)
Chemistry:

Actual(wt%)

SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
0.07	0.17	4.5	0.62	1.3	0.01	0.12	0.02	0.01	0.01	TOT 0.06

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
2024											EACH	0.05
MIN(wt%)	0.00	0.00	3.6	0.30	1.2	0.00	0.00	0.00	0.00	0.00	TOT	0.15
MAX(wt%)	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.05		

Aluminum Remainder

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4440764

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all materials shipped under this order:

- * have been inspected, tested, and found to be in conformance with the requirements of the applicable industry standards.
 - * All test equipment and measuring devices are calibrated and certified in accordance with the applicable standards.
 - * For material test specimens outside specification limits, mechanical properties are in short-term and chemical composition meet specification requirements. Reported elongation values have been measured as elongation at break.
 - * was obtained in the United States of America or a qualifying country per OFATC 225.172-101, was manufactured in the United States of America, and meets the requirements of OFATC 225.225 for domestic material.
 - * has been thoroughly processed in accordance with AMS 2777, where applicable.
 - * is necessary for, verify the status of detection of ASTM E1219 1 < 1 ppm.
 - * is in conformance with AS9100, European Union Directive 2011/65/EU.
 - * is in conformance with European Chemical Agency, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
 - * is free of Confirmed Adhesives, as defined in Section 18.2 of the Decontamination Act.
 - * is free of voids.
 - * meets the reporting requirements of 2410204, Type 3.1.
- Any testimony or evidence to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum Laboratory. The reporting of false, fictitious or fraudulent statements or phrases on this certificate may be punished as a felony under federal law.



JAMES HEMMENWAY, TECHNICAL PROCESS MANAGER

MATERIAL RECEIPT INSPECTION FORM

MATERIAL M6061T651.250w.120
DATE FEB 15 2018

PO BATCH NO 038983/042210

MATERIAL CERT REQ'D yes
QUANTITY RECEIVED 20"
QUANTITY INSPECTED 20"
QUANTITY REJECTED 0

THICKNESS ORDERED W.120
THICKNESS RECEIVED W.120
SHEET SIZE ORDERED N/A
SHEET SIZE RECEIVED N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	QQ-A-200/8
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	Heat # 385680
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR E	WE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

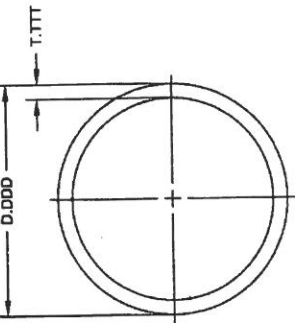
QC 18 INSPECTION

ENGINEERING SIGNOFF (if

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

SPECIFICATION: $\triangle C$
 WW-T-700/8
 OR QQ-A-200/8 OR QQ-A-225/8
 OR AMS 4080 OR AMS 4082 OR AMS 4083
 OR ASTM B210 OR ASTM B241

PART NUMBER: M6061T6T6.DDDIWT.TTT
 OD | WALL

WHERE "D.DDD" = OD IN INCHES
 "T.TTT" = WALL THICKNESS
 EG. 3.6" OD X 0.058 WALL = M6061T6T6.375W0.058
 MATERIAL TOLERANCE: $\triangle C$ PER ANSI H35.2

RELEASED
 2013-07-02

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.08.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	W		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.06.12		

DART AEROSPACE LTD

HAWKESBURY, ONTARIO, CANADA

REV. C

DRAWING NO.

M6061T6T

SHEET 1 OF 1

TITLE

6061-T6 TUBING

SCALE

NTS

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CAN ART
ALUMINUM EXTRUSION L.P.

#6312-TAL-114114120R-V

TRA-2193

49880

Material Test Report

Ship To:

Manifest: 330665

Ticket:
5561100

Our Order: 439155 - 1

Cust P.O.: 4500834118-RY003

Die: EH05672

Part: 100018933

Alloy Temp: 6061 T6S11

Description: 1.250 x .125

Print Date: 9/30/17

Chemical Composition

Maximum

CastNum	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Each	Other Total
3B6580	0.60	0.19	0.22	0.04	0.83	0.06	0.01	0.02	0.05	0.15

Mechanical Properties

Strength ksi

Sample ID	Cast #	Lot #	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length
428417	3B6580	A11	9/25/17	45.64	41.07	9.2

Applicable Specifications: ASTM B221-14

AMS-QQ-A200/8A

ASTM B429

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.


Evan Eng, Quality Assurance Manager

TAL 1141141205

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

00-73496

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

AC00005079
PART NUMBER/NUMÉRO DE PIÈCE

506255

SOLD TO: ACIER QUELLETTE INC
VENDU À: 22 BOULEVARD J-F KENNEDY
ST JEROME QC J7Y 4B6

SHIP TO:
EXPÉDIÉ À:

ACIER QUELLETTE INC.
22 BOULEVARD J F KENNEDY
SAINT JEROME QC J7Y 4

Part

Page 02 of 02

Certification Date
25-APR-2017

Invoice Number
T365756

Description: 4140/4142 HR ANN BAR ASTM A322

5/8 RD X 20' R/L

HEAT: 75061935

ITEM: 506255

END-QUENCH HARDENABILITY (JOMINY - RC)

1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
56	56	56	56	56	56	55	54	53	51	49	47	45	44	44

24 28 32

42 39 37

Line Total: 426 LB

IDEAL DIAMETER : 5.27 IN GRAIN SIZE : 5 - 8

STRAND CAST REDUCTION RATIO 221.8 TO 1
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
MACRO: OK

The above data were transmitted from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. Les informations ci-haut-mentionnées sont transmises du certificat d'essais du fabricant après vérification de l'état complet des spécifications inscrites sur le certificat. Nous certifions que le matériel couvert par ce rapport will meet the applicable requirements described herein, including any specification forming a part of the description. Par les présentes, nous certifions que le matériel couvert par ce rapport respecte les spécifications décrites ci-haut. The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables, en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. Par les présentes, nous certifions que le matériel couvert par ce rapport respecte les spécifications décrites ci-haut.

JOANNE DESPRES

Joanne Despres

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303RO.250
DATE: FEB 15 2018

PO BATCH NO: 038783604220

MATERIAL CERT REQD: yes
QUANTITY RECEIVED: 12"
QUANTITY INSPECTED: 12"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250
THICKNESS RECEIVED: 0.250
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>Astn A582</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<u>Heat # B5W8</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK
RECORD RESULTS BELOW

	HRC	HRB	DURA	DURC	AE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:

ASTM A582

PART NUMBER:

M303RD DDD
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303R0.750

Revised
2010-02-02
NR

B	REFORMAT DWG. ADD SPECS (ZN D8-1)	CP	10.01.05
A	REF PART 08-020A	DS	01.12.20
REV.	NEW ISSUE	BY	DATE
DESIGN		DESCRIPTION	
DRAWN		DART AEROSPACE LTD	
CHECKED		HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.		DRAWING NO.	
APPROVED		M303R	
DE APPR.		TITLE	
DATE	10.01.05	303 ROUND BAR	
		DART AEROSPACE LTD	
		107 TORL (USED FOR NEW PARTS OF EXISTING PARTS TO HAVE OTHER TOLERANCE WITHOUT	
		INTERFERENCE AND DIMENSIONAL TOLERANCE	



NORTH AMERICAN STAINLESS
6870 HIGHWAY 42 EAST
GHENT, KY 41045

METALLURGICAL TEST REPORT

6870 HIGHWAY 42 EAST

Certificate: 714538 1 Mail To:

Customer: 007035 024

Ship To:

Date: 2/23/2012 Page: 1

Steel: 303

Finish: CD

Corrosion:

Your Order: 711845

NAS Order: PN 0017508 01

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
ASTM A582/05 EN 10204 3.1, ASTM A484/10
AMS 5640U TYPE 1, QQS-764B CONDITION A

REMARKS:

COMPLIES W/REQUIREMENTS OF DPAS EU DIRECTIVE 2002.95.
EC. ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA
FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BE4162 4		.2500		1,245	144.00	1	1	71464632

CHEMICAL ANALYSIS CM(Country of Mail) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

HEAT	CM	C	CO	CR	CU	MO	N	NZ	P
B5W8	US	.0710	.0825	17.4470	.3225	1.8045	.3580	.0443	8.5380 .0310
		S	SI						
		.3480	.3015						

MECHANICAL PROPERTIES

Product Id	1 d o i c f	HB	.2YS KSI	UTS KSI	RA %	Elng % 2"
BE4162 4	RL	244.00	97.21	110.42	32.93	23.50

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr.

ERIC HESS

2/23/2012

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018R1.00
DATE: FEB 15 2018

PC BATCH NO: 038983/04221

MATERIAL CERT REQ'D: yes
QUANTITY RECEIVED: 18"
QUANTITY INSPECTED: 18"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.00
THICKNESS RECEIVED: 1.00
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astm A108</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	(Y) (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat #191110</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR C	WE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR
 SPECIFICATION: MIL-S-7097 OR ASTM A108
 PART NUMBER: M1018-R10 DDD WHERE D DDD = DIAMETER IN INCHES
 D/A.

EG. 7/8" ROUND BAR = M1018-R0 875

TOLERANCES:

PER ASTM A108 AS FOLLOWS:
 SIZE TOLERANCE
 UP TO 1.5" INCL. +0.000/-0.002
 OVER 1.5" TO 2.5" INCL. +0.000/-0.003
 OVER 2.5" TO 4.0" INCL. +0.000/-0.004
 OVER 4.0" TO 6.0" INCL. +0.000/-0.005
 OVER 6.0" TO 8.0" INCL. +0.000/-0.006

RELEASED
 2012-09-24
 MJD

B	REFORMAT, ADD ASTM A108, ADD TOLERANCES	CP	12.09.05
A	NEW ISSUE	DS	01.06.12
REV	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	CP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	CP	DRAWING NO.	REV. B
MFG. APPR.	MJD	M1018-R	SHEET 1 OF 1
APPROVED	MJD	TITLE	SCALE
DE APPR.	MJD	1018-1025 ROUND BAR	NTS
DATE	12.09.05	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS NOT TO BE REPRODUCED OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

5292
5260

RCR-T-V
RCR-114-V

79553
49554 CA 47950



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49784

ALBARAN 49784
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A108

REFIDIO Order Ref.	DESCRIPCIÓN Description	978	-0,051	137149	25,40
PAR-48569	1018 RED. ESTIRADO 25,40 (1")	978	-0,051	141109	25,40
MOP-48737	1018 RED. ESTIRADO 25,40 (1")	1.052	-0,051	141112	7,94
OU-47949	1018 RED. ESTIRADO 7,94 (5/16")	1.010	-0,051	141114	17,46
OU-47949	1018 RED. ESTIRADO 17,46 (11/16")	998	-0,051	141110	25,40
CA-47950	1018 RED. ESTIRADO 25,40 (1")	994	-0,051	140119	31,75
CA-47950	1018 RED. ESTIRADO 31,75 (1 1/4")	1.122	-0,051	141129	6,35
VI-48475	1018 RED. ESTIRADO 6,35 (1/4")	1.996	-0,051	141279	25,40
PAJ-48144	1018 RED. ESTIRADO 25,40 (1")	1.012	-0,051	141280	28,58
PAJ-48144	1018 RED. ESTIRADO 28,58 (1 1/8")	1.468	-0,051	141267	19,05
PAR-48143	1018 RED. ESTIRADO 19,05 (3/4")	2.992	-0,051	141269	25,40
PAR-48143	1018 RED. ESTIRADO 25,40 (1")	836	-0,051	916831	30,16
PAR-48143	1018 RED. ESTIRADO 30,16 (1 3/16")	1.996	-0,051	141287	25,40
MOP-48145	1018 RED. ESTIRADO 25,40 (1")	3.994	-0,051	141414	25,40
MN-48543	1018 RED. ESTIRADO 25,40 (1")				

Composición química de la coque / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Cr	% Cu	% Mn	% Mo	% N	% Ni	% P	% S	% Si	
25,40	0,00	137149	40655 G	0,170	0,106	0,231	0,610	0,024	0,000	0,111	0,011	0,016	0,143
25,40	0,00	141109	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175
7,94	0,00	141112	42134 GM	0,170	0,000	0,290	0,710	0,000	0,007	0,000	0,020	0,008	0,160
17,46	0,00	141114	41994 AA	0,157	0,000	0,000	0,600	0,000	0,000	0,000	0,013	0,025	0,163
25,40	0,00	141110	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175
31,75	0,00	140119	41892 AG	0,167	0,000	0,169	0,800	0,000	0,006	0,000	0,009	0,021	0,198
6,35	0,00	141129	41975 GM	0,160	0,000	0,300	0,710	0,000	0,008	0,000	0,022	0,012	0,180
25,40	0,00	141279	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175
28,58	0,00	141280	42186 AG	0,171	0,000	0,000	0,600	0,000	0,004	0,000	0,009	0,023	0,194
19,05	0,00	141267	41645 G	0,160	0,000	0,000	0,640	0,000	0,000	0,000	0,013	0,019	0,133
25,40	0,00	141269	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175
30,16	0,00	916831	41411 AG	0,165	0,000	0,000	0,758	0,000	0,000	0,000	0,016	0,021	0,220
25,40	0,00	141287	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175
25,40	0,00	141414	42055 G	0,160	0,083	0,271	0,650	0,018	0,000	0,099	0,011	0,010	0,175

Características mecánicas / Mechanical properties



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Madr: according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49784

ALBARAN 49784 Delivery Note Nr.	CLIENTE LES ACIERS TRANSBEC (1997) LTÉE CUSTOMER
------------------------------------	---

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norma :

Bright steel products. Technical delivery conditions.

MEDIDA Measurement	OF	COLADA Cast Nr.	Resistencia Tens. strenght N/mm2	Lím.elástico Yield point 0,2% N/mm2	Alargamiento Elongation Lo=50 mm.	Dureza HB Hardness HB	Estricción %	
25,40		137149	40655 G	586,71	565,37	21,86	176,00	57,70
25,40		141109	42055 G	623,30	596,92	28,40	200,00	57,39
7,94		141112	42134 GM	706,60	658,20	10,30	216,00	61,76
17,46		141114	41994 AA	560,10	538,07	19,94	180,00	60,88
25,40		141110	42055 G	623,30	596,92	28,40	200,00	57,39
31,75		140119	41892 AG	571,60	542,70	34,68	180,00	58,35
6,35		141129	41975 GM	670,93	637,52	8,10	190,00	62,71
25,40		141279	42055 G	623,30	596,92	28,40	200,00	57,39
28,58		141280	42186 AG	541,06	518,47	14,54	156,00	56,31
19,05		141267	41645 G	632,89	593,23	19,38	200,00	55,28
25,40		141269	42055 G	623,30	596,92	28,40	200,00	57,39
30,16		916831	41411 AG	551,06	525,36	21,06	165,00	59,43
25,40		141287	42055 G	623,30	596,92	28,40	200,00	57,39
25,40		141414	42055 G	623,30	596,92	28,40	200,00	57,39

Calidad Superficial

DESCRIPCIÓN Description	OF	Clase EN 10277-1
1018 RED. ESTIRADO 25,40 (1")	137149	2
1018 RED. ESTIRADO 25,40 (1")	141109	2
1018 RED. ESTIRADO 7,94 (5/16")	141112	2
1018 RED. ESTIRADO 17,46 (11/16")	141114	2
1018 RED. ESTIRADO 25,40 (1")	141110	2
1018 RED. ESTIRADO 31,75 (1 1/4")	140119	2
1018 RED. ESTIRADO 6,35 (1/4")	141129	2
1018 RED. ESTIRADO 25,40 (1")	141279	2
1018 RED. ESTIRADO 28,58 (1 1/8")	141280	2
1018 RED. ESTIRADO 19,05 (3/4")	141267	2
1018 RED. ESTIRADO 25,40 (1")	141269	2
1018 RED. ESTIRADO 30,16 (1 3/16")	916831	2
1018 RED. ESTIRADO 25,40 (1")	141287	2
1018 RED. ESTIRADO 25,40 (1")	141414	2

Observaciones: BARRAS DE ACERO ESTIRADAS EN FRIO SIN ALEAR



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49784

ALBARAN 49784
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.
QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 23/11/2017

Firmado: Susana Fernández
Directora de Calidad



Sistema de
Gestión
ISO 9001:2008
www.tuvrheinland.es
© TÜV Rheinland

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R1.000
DATE: FEB 15 2018

PO BATCH NO: 038983/504221

MATERIAL CERT REQ'D: yes
QUANTITY RECEIVED: 8"
QUANTITY INSPECTED: 8"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
THICKNESS RECEIVED: 1.000
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	A322
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat #177569
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK

RECORD RESULTS BELOW

	HRC	HRB	DURA	DURID	AVE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (f)

INSPECTED BY: DAS
11
DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



<p>EMER TD</p> <p>Emerald Steel Corporation 102210 75th Avenue Oak Park, IL 60438</p>	<p>EMCP PD</p> <p>Emerald Steel Corporation c/o Apollo Peak Trust 17630 Capital Blvd. Cali Park, MD 48317</p>
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Eaton Steel Bar Company Inspection Certificate									
Customer		Ship Date	Customer PO	Item	11142 (REV 005)				
Customer Item		11142 (REV 005)	11142 (REV 005)						
Item Description		1 HH HD 414X2MM 24HIN SBC QTSF FG MST							
All bundles listed below were produced using steel from Heat 177569 issued by ALTON STEEL and were completed from Eaton Steel Job 020517.									
Chemistry	Description	Value	Units	Technical	Description	Value	Units	Value	Units
C	Carbon	0.43000	PMOT	TENSILE PSI	Tensile Strength in PSI Units	148000	PSI	148000	PSI
Mn	Manganese	0.89000	PMOT	YIELD PSI	Yield Strength in PSI Units	138000	PSI	138000	PSI
P	Phosphorus	0.01300	PMOT	ELONGATION	Percent Elongation	17.00	PER	17.00	PER
S	Sulfur	0.02000	PMOT	REDUCTION	Percent Reduction in Area	57.0	PER	57.0	PER
Si	Silicon	0.23000	PMOT	BRINELL SURF	Brinell Surface	211.0	BRN	211.0	BRN
Ni	Nickel	0.08900	PMOT	Heat Treating	Description	Value	Units	Value	Units
Cr	Chromium	0.08900	PMOT	TEMPER TEMP F	Temper Temp in Fahrenheit	500 - 2500	DEG F	500 - 2500	DEG F
Mo	Molybdenum	0.01300	PMOT	AUSTEN TEMP F	Austenitizing Temp in Fahrenheit	1600 - 1700	DEG F	1600 - 1700	DEG F
Al	Aluminum	0.25000	PMOT	SR TEMP F	Stress Relief Temp in Fahrenheit	500 - 2500	DEG F	500 - 2500	DEG F
Cu	Copper	0.02800	PMOT	WATERBURY	Waterbury in Gages	Report	PER	Report	PER
V	Vanadium	0.00300	PMOT	TIME AT TEMP	Time at Temperature	PER	PER	PER	PER
Co	Cobalt	0.01100	PMOT	QUENCH MEDIA	Quench Media Requirement	CONFORMS	CONFORMS	CONFORMS	CONFORMS
N	Nitrogen	0.01300	PMOT	BRINELL SURF	Brinell Surface	211.0	BRN	211.0	BRN
PAS	Greatest Bar Limit	0.01300	PMOT	HT 1410-420T	Heat Treatment	Value	Units	Value	Units
DI	Total Diameter	4.54000	IN	ROLLING COUNTRY	Rolling in Country	USA	USA	USA	USA
Cleanliness		Report per airtel results.							
MACRO PITCH		Report per airtel results.							
Grain Size		Report per airtel results.							
Diameter		Report per airtel results.							
Jominy		Report per airtel results.							
J1	1/16 inch from Quenched End	56	HRC	ASTM Standard	ASTM Standard	Value	Units	Value	Units
J2	1/16 inch from Quenched End	56	HRC	A191/192P-01	Grade 17	CONFORMS	CONFORMS	CONFORMS	CONFORMS
J3	1/16 inch from Quenched End	56	HRC	A304-05	Carbon & Alloy Steel Bar End Quench Req	CONFORMS	CONFORMS	CONFORMS	CONFORMS
J4	1/16 inch from Quenched End	56	HRC	A302-13	Steel Bars, Alloy, Standard Grades	CONFORMS	CONFORMS	CONFORMS	CONFORMS
J5	1/16 inch from Quenched End	55	HRC	A134-93A-BC	ASTM BC Template and Yield Properties	CONFORMS	CONFORMS	CONFORMS	CONFORMS
J6	1/16 inch from Quenched End	54	HRC	PRECAST TM	Percent Tempered Martensite	50 - 100	PER	50 - 100	PER
J7	1/16 inch from Quenched End	52	HRC	MCPOSTRUCTUR	Reported Microstructure	Length	Length	Length	Length
J8	1/16 inch from Quenched End	51	HRC	Tag Number	Tag Number	2973 105	2973 105	2973 105	2973 105
J9	1/16 inch from Quenched End	51	HRC	Q22-2159347	Q22-2159347	24464in	24464in	24464in	24464in
J10	1/16 inch from Quenched End	50	HRC						
J11	1/16 inch from Quenched End	47	HRC						
J12	1/16 inch from Quenched End	45	HRC						
J13	1/16 inch from Quenched End	42	HRC						
J14	1/16 inch from Quenched End	42	HRC						
J15	1/16 inch from Quenched End	43	HRC						
J16	1/16 inch from Quenched End	39	HRC						
J17	1/16 inch from Quenched End	39	HRC						
J18	1/16 inch from Quenched End	36	HRC						
J19	1/16 inch from Quenched End	36	HRC						
J20	1/16 inch from Quenched End	35	HRC						
J21	1/16 inch from Quenched End	35	HRC						
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J154	1/16 inch from Quenched End	35	HRC						
J155	1/16 inch from Quenched End	35	HRC						
J156	1/16 inch from Quenched End	35	HRC						
J157	1/16 inch from Quenched End	35	HRC						
J158	1/16 inch from Quenched								

Printed on 12-20-2017

Compendio Metallurgico

These experiments pose, nevertheless, a number of questions, which need to be addressed in future research.

Bundles bags with Eaton Steel "C" are referred to the steel grade, heat, purchase order number and date. Some of 44% represented in company records.

on and clarity. Many of the good things that have been done in the past are still in the possession of Eaton Steel.

_____ was not subject to weld repair or exposure to fire.

Tel: 248-398-3434

Fax: 248-398-1424



Huntington Facility - Test Report
29 Commerce Road, Huntington, IN 46750
(765) 356-3500
IN (765) 356-6532

Printed: 10/26/2012 11:50 AM

Base Order	41745	Customer Name	EATON STEEL CORPORATION
Heat Number	877569	Location	1421 CAPITAL AVE OAK PARK, IN 46057
Size	1.0000		
Turned On	1.0000		
Cracks	4140		

Test Runners: 1 HR RD 4142424N 2567 F213.6482

LD0828517

FG 11142

Approved ☒ By: W. K. K. K. K.

Approved Date: 10/26/12

Chemical Data												
Heat Number	C	Mn	P	S	N	Cr	Mo	Cu	Al	V	B	Other
171569	0.410	0.850	0.013	0.020	0.250	0.066	0.047	0.159	0.250	0.003	0.028	0.000

QAT Test Data				QAT Test Data			
Heat Number	Yield	TS	EL	Yield	TS	EL	EL
877569	27.9	34.7	31.7	27.9	34.7	31.7	31.7
877569	27.9	34.7	31.7	27.9	34.7	31.7	31.7

QAT Test Data

Sample Data: 507 DLE							
Sample Number:							
Test #	Yield 1	Yield 2	Yield 3	Yield 4	Yield 5	Yield 6	Yield 7
1421	13.00	2.00	0.00	0.00	0.00	0.00	0.00

Heat Test Data

Adjusted at: 507 DLE for 0.7 inches
Temperature at 1.000 DLE for 0.7 inches

Induction Heating
Water Quenched

Other Test Data			
Decals	Strips	Welds	As Quenched
0.125 (3.1)	0.125 (3.1)	0.125 (3.1)	0.125 (3.1)

Dimensions of Other Tests

2 Fit Load Surface

We hereby certify that the reporting data are correct
according to the standards and codes of the reporting

Doug Venable, Vice President

REDA

Page 1 of 1
422637



DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. M4140H-R	REV. A SHEET 1 OF 1
DATE 05.02.21		TITLE 4140 ROUND BAR	SCALE 1:1
A	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02 / -A-434-BC /

-A193-03-GRADE-B7 / -A29-03 / -A322-91 OR

UNS# - G41400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 ksi

MINIMUM YIELD TENSILE STRENGTH = 66 ksi

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES
DIA.

EG. $\frac{7}{8}$ " ROUND BAR = M4140H-R0.875

RELEASED
05.03.25 #

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL MT-4140QT-RO.625
DATE FEB 15 2018

PC BATCH NO 038983/504221

MATERIAL CERT REC'D: Yes
QUANTITY RECEIVED: 90"
QUANTITY INSPECTED: 90"
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625
THICKNESS RECEIVED: 0.625
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	429
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	Heat # 75061935
CORRECT MATERIAL IDENTIFICATION	X (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK

RECORD RESULTS BELOW

	HRC	HRB	DJRA	DJRE	AE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if)

INSPECTED BY: DAS
11
DATE: 9-80 FEB 15 2018

SIGNED OFF BY: _____
DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. M4140H-R	REV. A SHEET 1 OF 1
DATE 05.02.21		TITLE 4140 ROUND BAR	SCALE 1:1
A	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02 / -A-434-BC /

-A193-03- GRADE-B7 / A29-03 / -A322-91 OR

UNS # - G41400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 ksi

MINIMUM YIELD TENSILE STRENGTH = 66 ksi

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES
DIA.

EG. 7/8" ROUND BAR = M4140H-R0.875

RELEASED
05.03.25 #

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CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 02

Certification Date
25-APR-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
T365756

AC00005079
PART NUMBER/NUMÉRO DE PIÈCE

506255

SOLD TO: ACIER QUELLETTE INC
VENDU À: 22 BOULEVARD J-F KENNEDY
ST JEROME QC J7Y 4B6

SHIP TO:
EXPÉDIÉ À:

ACIER QUELLETTE INC.
22 BOULEVARD J F KENNEDY
SAINT JEROME QC J7Y 4

Description: 4140/4142 HR ANN BAR ASTM A322
5/8 RD X 20' R/L
HEAT: 75061935
ITEM: 506255

Line Total: 426 LB

Specifications:
ASTM A322 07
ASTM A29/A29M 11
ASTM A322 13
CAT 1E0024
ASTM A322 91

ASTM A304 05
EN 10204 3.1 04
ASTM E112
ASTM E381

SAE J422
ASTM A304 11
ASTM A255
ASTM A304 02

CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.40	0.97	0.007	0.026	0.25	0.23	0.86	0.16
CU	SN	AL	V	NB			
0.21	0.01	0.023	0.002	0.002			

RCPT: R977496

COUNTRY OF ORIGIN : USA

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. Les informations ci-haut-mentionnées sont transcrits du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut. The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES

Joanne Despres

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
25-APR-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
T365756

AC00005079
PART NUMBER/NUMÉRO DE PIÈCE

506255

SOLD TO: ACIER OUELLETTE INC
VENDU À: 22 BOULEVARD J-F KENNEDY
ST JEROME QC J7Y 4B6

SHIP TO:
EXPÉDIÉ À:

ACIER OUELLETTE INC.
22 BOULEVARD J F KENNEDY
SAINT JEROME QC J7Y 4

Description: 4140/4142 HR ANN BAR ASTM A322
5/8 RD X 20' R/L
HEAT: 75061935
END-QUENCH HARDENABILITY (JOMINY - RC)

Line Total: 426 LB

ITEM: 506255

1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
56	56	56	56	56	56	55	54	53	51	49	47	45	44	44
24	28	32												
42	39	37												

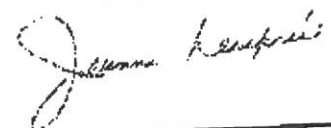
IDEAL DIAMETER : 5.27 IN GRAIN SIZE : 5 - 8

STRAND CAST REDUCTION RATIO 221.8 TO 1
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
MACRO: OK

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut. The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

MATERIAL RECEIPT INSPECTION FORM

MATERIAL MT-A513-T-0.750W0.085

PO BATCH NO. 038983/504215

DATE FEB 15 2018

MATERIAL CERT REQ'D. Yes
 QUANTITY RECEIVED: 23'
 QUANTITY INSPECTED: 23'
 QUANTITY REJECTED: 0

THICKNESS ORDERED W0.085
 THICKNESS RECEIVED W0.085
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Astm A513 Type 5
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 15C1472
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DURA	DURE
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (f)

INSPECTED BY: DAS 11
 DATE: 9-89 FEB 15 2018

SIGNED OFF BY: _____
 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)

SPECIFICATION:

ASTM A513 TYPE 5

PART NUMBER:

MT-A513-T-[D.DDD]W[T.TTT]

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-655	17.09.06	VM	WM
B	TYPE 5 ADDED, TEMPLATE UPDATED	17-790	17.12.13	VM	ML

DART AEROSPACE		Hawkebury, Ontario, Canada	
TITLE ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM)			
PART NO.	REV	B	
TOOL NO.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS PER ASME Y14.5M-2009 DIMENSIONS APPLY AFTER FINISHING			
DESIGNED BY:	INITIALS AND DATE	TOLERANCES: ± .005	
DRAWN BY:	VM 17/12/13	FRACTIONS: ± .005	
CHECKED BY:	VM 12/13/2017	ANGLES: ± .1	
WFO REVIEW BY:	ML 12/20/2017	SURFACE: ± .01	
APPROVED BY:	ML 12/20/2017	FINISHES	
CO. APPROVED BY:		SCALE: NTS	SHEET 1 OF 1
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

AARISTM LLC

7953 Washington Woods Dr.,
Dayton, OH 45459

Phone: (937)573-4875 Fax: (937)926-4128

Material Test Report

Date	MTR No.
4/30/2016	0000056608

TEST CERTIFICATE ACC TO DIN 50049 3.1 B/EH: 10204: 3.1

Customer:

Part Number: 87-15955-17

PO Number: 87-15955

Description: A513T5-14; SRA; DOM; Grade=1020; Category=CARBON WELDED; Round; OD=0.750"; ID=0.584"; (WT=0.083"); Deburred; Length=240" to 288"

Product: TUBE

Ends: Deburred

Heat No: 15C1472

Steel Grade: 1020

	DIMENSIONS		TOLERANCE		UOM	QUANTITY		
	MM	IN	-VE	+VE		NUMBER	METER / FT	WEIGHT TON
OD	19.050	0.750	0.0000	0.0050	IN	1	1,698.371	5,244.000
ID	14.834	0.584	0.0050	0.0000	IN			
WT	2.108	0.083	0.0000	0.0000	IN			
							6,096.000 - 7,315.200 MM	240.000 - 288.000 IN

CHEMICAL ANALYSIS				
ELEMENTS	UOM	MIN	MAX	MILL PRODUCT
Carbon (C)	%	0.1800	0.2300	0.1900
Manganese (Mn)	%	0.3000	0.6000	0.4300
Silicon (Si)	%			0.170
Aluminum (Al)	%			0.0480
Phosphorus (P)	%		0.0350	0.0120
Sulfur (S)	%		0.0350	0.0100
Chromium (Cr)	%			
Nickel (Ni)	%			
Molybdenum (Mo)	%			
Vanadium (V)	%			
Copper (Cu)	%			
Columbium (Cb)	%			
Calcium (Ca)	%			
Titanium (Ti)	%			
Nitrogen (N)	%			
Boron (B)	%			
Zirconium (Zr)	%			
Antimony (Sb)	%			
Tin (Sn)	%			

MECHANICAL PROPERTIES			
	Y.S Psi	U.T.S Psi	% E HARDNESS HRB
MIN	55,000	65,000	10.00
MAX			
MILL	67,630	78,010	20.00
PROD			

Sample Orientation:
Tensile Spec Type:
Gauge Width (MM):

Remarks:

100% EDDY CURRENT TESTING- E309

PASSED

FLATTENING TEST

2/3% OF OD 1/3% OF OD PASSED

FLARING TEST

15% OF ID PASSED

STRAIGHTNESS

PASSED (1/1600 MM)

Remarks:

Melted In: INDIA

Produced In: INDIA

Product is free of weld repair and has not come in contact with Mercury or any of its components.

We hereby Certify that the material described above conforms to Specification and Purchase Order.

Bill Johnston

Quality Co-ordinator

Any questions, Please email: TestReports@aaris-llc.com

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6S.063
DATE: FEB 15 2018

PO BATCH NO: 038983/504220

MATERIAL CERT REC'D: Yes
QUANTITY RECEIVED: 96m
QUANTITY INSPECTED: 96m
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.63
THICKNESS RECEIVED: 0.63
SHEET SIZE ORDERED: 4x8
SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	QQ-A-250/11
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	Heat# 01/0072091/5
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR C	TWEE
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if req'd)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 FEB 15 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in.

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET

SPECIFICATION: **2** QQ-A250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209

PART NUMBER: M6061T6S | XXX
THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M6061T6S.063

PREFERRED SIZE: XXX BY 4FT BY 8FT

RELEASED
2009-09-10
MP

B	REFORMAT DWG. ADD B209 SPEC (ZN DB-1).	CP	09.07.13
A	REF PAR 08-020A	DS	01.06.08
REV	NEW ISSUE	BY	DATE
DESIGN		DESCRIPTION	
DRAWN		DART AEROSPACE LTD	
CHECKED		HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.		DRAWING NO. M6061T6S	REV. B
APPROVED		TITLE 6061-T6 SHEET SPEC	SHEET 1 OF 1
DE APPR.			SCALE NTS
DATE	09.07.13		

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Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate

Nr.: 85150377 01 / 4

Rev.: 0

Seite / page: 1 von / of 2

Datum / date: 2015 11 10

Zertifiziert nach / certified to: ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Auftraggeber / customer:	Bestell Nr. / order no.:	C 70532
	Datum / date:	2015 05 20
Warenempfänger / consignee:	Auftragsbest. Nr. / order confirm no.:	693391
	Datum / date:	2015 05 21
	Lieferschein Nr. / delivery note:	85150377
	Datum / date:	2015 11 30

Produkt / product	Bedingungen / terms
Form / form: Sheet	Technische Lieferbedingungen / techn. spec.:
Werkstoff / material: 6061	AMS-QQ-A-250/11, 06.1997
Zustand / temper: T6	ASTM B 209 - 14
Dim. / dim.: [inch]: 0,963x48,00x96,00	AMS 4027N, 07.2008
	Cessna CMMPO19, Rev. D, 09-07-01
	Cessna CMMPO25, Rev. V, 2-20-15
	Sondervorschrift / special terms:

AB-Poz. ord.-item.	BNr/Los/Faillos Lot/No./Part	Größe/Nr. case/no.	Werkstoff material	Kello pack/box	Gewicht netto weight net	Stk. pcs.
06	61011/01/00	01/0072091/5	6061	6933910027	2409,612 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910028	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910029	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910030	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910031	2416,226 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910032	2416,226 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910033	1560,847 lbs	55

Chemische Zusammensetzung (% Gew./chemicals) / Chemical composition (% weight proportion (DES))											
Case Nr. / case no.	material	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
01/0072091/5	6061	0,10	-	0,15	-	0,80	0,04	-	-	-	-
	spec. min.	0,10	0,70	0,40	0,15	1,20	0,35	0,25	0,15	0,05	0,15
	spec. max.	0,68	0,44	0,24	0,12	0,88	0,18	0,06	0,03	0,02	0,03

Zugprüfung LT / tensile test LT									
BNr/Los	Zustand	Richtung	Tests	UTS	YS	AZ			
Lot/No.	temper	direction		(ksi)	(ksi)	(%)			
			spec.min.	42,0	35,0	10			
			spec.max.	-	-	-			
61011/01	T6	LT	8	from 48,6	42,4	13			
61011/01	T6	LT		to 49,0	42,9	15			

AMAG

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85150377

01 / 4

Rev.: 0

Seite / page:

2 von / of 2

Datum / date:

2015 11 10

Zertifiziert nach / certified to: ISO 9001, ISO/TS 16949, DIN EN 9100, ISO 14001, NADCAP

Sonstige Prüfungen / other tests

Biegeversuch: OK / Transverse bend test: OK

Maßkontrolle: OK / Dimensional Check: OK

Oberfläche: OK / Surface inspection: OK

Bemerkungen / notes

Die Dimensionstoleranzen entsprechen ANSI XXX /

As standard, dimensional tolerances are to ANSI XXX

Ausgestellt nach Airbus Zulassung Nr. 30272.
Wir bestätigen, dass die gesamte Lieferung unter Einhaltung und soweit oben nicht anders dargelegt aller Forderungen (Spezifikationen, Zeichnungen, Aufträge) hergestellt und geprüft wurde.
Das Qualitätsmanagementsystem erfüllt die Anforderungen der AUK/SA001-3.
Hergestellt, kontrolliert und geprüft nach Hawker Beechcraft HBIFSAS/PART3/0771
Agusta Westland Genehmigung Lieferantennummer V21275
Issued under Airbus Approval No. 30272.
Certified that the whole of the supplies detailed hereon have been manufactured, inspected, tested and unless otherwise stated above conform in all respects to the Specifications, Drawings and Contract.
Order relevant thereto The Quality Management System arrangements in respect of these supplies comply with the requirements of AUK/SA001-3.
Manufactured, inspected and tested according Hawker Beechcraft HBIFSAS/PART3/0771
Agusta Westland approval supplier code V21275

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkstatteinrichtungen / factory specialist

E-Mail / e-mail

Klampfer Josef

josef.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin.
Maschine erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

